1

If C → V

If Focus Test is centre to violet, shorten the focus, ie increase the micrometer setting.

(the micrometer moves the lens)

Minimum Deviation is at λ4150

Sensitivity	Counter 12"	Counter 25"
4	1	3
5	2	6
6	2	6
7	4	16
8	10	40
9	30	120
10	60	240

This gives one count every 2 min if seeing is 0-1

Next Violet Max every 40 sec approx.

	Intensity Spots
1	60.00
2	22.91
3	8.77
4	4.59
5	3.30
6	114.6
7	3.32
8	115.9
9	6.23
10	32.73
11	16.37

x see their Baker (1957) Sketch Book 11-59

Quality	
too weak	*
weak	*
little weak	
good	
fine	← best!
little strong	
strong	
too strong	*

* not useable!

I-25 →	T (°C)	Focus (mm)
(subtract .09 mm)	-9	15.20
	-8	15.21
	-7	.22)
	-6	.24
	-5	.25
	-4	.26)
	-3	.28
	-2	.29
	-1	.30
	0	.31)
	1	.33
	2	.34
	3	.35
	4	.36)
	5	.38
	6	.39
	7	15.40)
	8	.42
	9	.43
	10	.44)
	11	.46
	12	.47
	13	.48)
	14	.50
	15	.51
	16	.52)
	17	.54
	18	.55
	19	.56)
	20	15.58
	21	.59)
	22	.61
	23	.62)
	24	.64)
	25	.66
	26	.67)
	27	.69
	28	.70)
	29	.72)
	30	.74

4250	measurable	weak
4098	seen (4191 meas)	l. weak
4092	measurable	good
4005	just meas	fine
4005	sharp	strong
4531	gone, K measurable	two strong

3

Dome Temp.....
Focus.....
Dome Temp.....

Hour Angle
End

ome Temp.....

ocus.....

ome Temp.....

Transparency Conditions.....

our Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
						DAVID DUNLAP OBSERVATORY	
						14" LOG BOOK	
						VOL. 29	
						PLATE 25208 - 25746	
						JUNE 1960 - AUG 1961	

5

1960

Date June 29/30 Wed. / Thurs **Observer** S-L-PZ **Julian Day** 2437115.5

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H	Hour Angle Ind
25208	NGC 6205	16 40.3	+36 32	NGMT.	E103a-O			2147	2149	1	0036 E
25209	" 5904	15 16.6	+2 14		"			2211	2213	2	0111 W
25210	" 5897	15 15.7	-8 05		"			2218	2226	1	0125 W
25211	" 6218	16 45.1	-1 53		"			2231	2233	2	0003 W
25212	" 6254	16 55.0	-4 03		"			2237	2239	1	0014 E
25213	" 6366	17 25.6	-5 02		"			2243	2251	2	0019 E
25214	" 6535	18 1.8	-0 18		"			2301	2311	1	0039 E
25215	" 6356	17 21.3	-17 47		"			2316	2324	2	0020 W
25216	" 6093	16 14.7	-22 54		"			2329	2335	1	0036 W
25217	" 6356	17 21.3	-17 47		"			2340	2346	2	0021 W
25218	" 6235	16 51.0	-22 07		"			2351	0011	1	0137 W
25219	" 6356	17 21.3	-17 47					0014	0022	2	0117 W
25220	" 6649	18 31.2	-10 30					0026	0046	1	0030 W
25221	" 6356	17 21.3	-17 47					0050	0058	2	0152 W
25222	" 6535	18 1.8	-0 18					0102	0112	1	0121 W
25223	" 6656	18 33.9	-23 58					0123	0127	2	0107 W

Dome Temp. +75

Focus .....

Dome Temp. .....

Transparency Conditions .....

g Time S.T.	Pl	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Ex. Comp.	REMARKS	Quality
149	1	00 36 E					2	Focus on 8 Her. Star [illegible]	
213	2	01 11 W					2		
228	1	01 28 W					10		
233	2	00 03 W					2	Guess [illegible]	
239	1	00 01 E					2		
251	2	00 19 E					8	Transparency better than other nights, seeing not good.	F
311	1	00 39 E					10		
324	2	00 20 W					8	Focused on 27 H. Oph.	
335	1	00 36 W					6		
346	2	00 21 W					6		
011	1	01 37 W					20		
022	2	01 17 W					8		
046	1	00 30 W					20		
058	2	01 52 W					8		
112	1	01 26 W					10		
127	2	01 09 W					4	Focus on 68 Oph.	

7

1960

Date June 29/30 Rnd **Observer** SH-L-PE **Julian Day** 2437115.5

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H
25224	NGC 6626	18 22.1	-24 54	NEWT.	E103a-O			0130	0136	1
~~25225~~	" 6838	19 51.7	+18 39		"					
25225	" 6544	18 4.9	-25 01		"			0141	0153	2
25226	" 6838	19 51.7	+18 39					0212	0216	1
25227	" 6717	18 52.7	-22 46					0226	0237	2
25228	" 6712	18 50.8	-8 46					0240	0248	1
25229	" 6838	19 51.7	+18 39					0253	0257	2
25230	" 7089	21 31.4	-01 00					0302	0302	1

Dome Temp. +75°

Focus

Dome Temp.

Transparency Conditions

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Ex. Comp.	REMARKS	Quality
0130 W					6		
					+		
0206 W					14		
0040 W					4	poor seeing	
0200 W					16		
0214 W					8		
0120 W					4	seeing very poor.	
0011 E					1/2	Through cloud — clouded out	

Transparency excellent, seeing not good

S-Gz-Kq

Sat July 2 Suddenly clouded at 8:50 so could not show 1st quarter moon. Stored telescope + moon slides to 2 groups totalling 150. Rain.

[Thursday – Friday : Dominion Day Eve – Dominion Day]

Date 30th June / 1st July **Observer** S.I.-Hc-Sr **Julian Day** 2437116.5

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.	Hour Angle End
25231	5904	15h 16.6m	+2° 14'	NEWT	E1030a-O			22h 15m 22s	22h 18m 22s	1	1h 21m W
25232	6218	16 45.1	-1° 53		"			22h 25m 20s	22h 29m 20s	2	0h 04m W
25233	6254	16 55.0	-4° 03		"			22h 34m 00s	22h 38m 00s	1	0h 03m W
25234	6366	17 25.6	-5° 02		"			22h 41m 40s	22h 55m 40s	2	0h 10m E
25235	6535	18h 1.8m	-0° 18		"			23h 06m 20s	23h 26m 20s	1	0h 5m E
25236	6836	19h 51.7m	+18° 39		"			23h 32m 45s	23h 38m 45s	2	1h 33m E

Dome Temp.....

Focus.....

Dome Temp.....

Transparency Conditions.....

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp. (Ex)	REMARKS	Quality
$1^h 21^m$ W					3		
$0^h 04$ W					4		
$0^h 03^m$ W					4		
$0^h 10^m$ E					4		
$0^h 15^m$ E					20		
$1^h 53^m$ E					6		

Very poor night – not really workable except in N&E – Clouds from South now coming over solid

Changed to 25" Camera

12½" was Focus 12.92 Silt 20.35

25" Focus 15.58 Silt 23.15

11

Date Fri-Sat night July 1/2 Observer bk - bk Julian Day 2437 117

⊙ 10° 06 21.5 343 20

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.
25237	HD 173712	18 36 6	+52 14	I-75	103-a-O	set .008	23.0	22 32	23 26	3
25238	179153-4	19 26 3	+37 38	"	"	"	23.2	23 42	00 34	3
25239	186518-4	19 39 8	-26 54	"	"	"	23.2	01 [illegible]	01 52	2
25240	190753-4	20 34 3	+32 19	"	"	"	"	02 00	02 34	3

Done Temp.
Focus
Done Temp.
Hour Angle Set

Dome Temp. 66°F
Focus 15.53
Dome Temp. 65°

Transparency Conditions Cloudy earlier in the night
Scattered cloud

12

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
0 45 E	52 22	0	6.9	A2F2	4-4-4	set 2 thanks to 4 stars 7891 7912	
0 12 E	37 45	0	6.8	F0+2	4-4-4	8 -"- 7916 - 7930	
0 32 W	27 04	0	6.6	K0A0	4-4-4	2 -"- Plow Line 7932 - 7946	
0 50 W	23 35	0	6.1	K0+3	4-4-4	8 -"- 7 RA's 0.0 wet 7931 - 7960	

Considerable cloudiness - cloud
4 PM + 4 via yellow bat (π - a 0)

Changed to 12½" Camera
25" was Foc. 15.53 Silt 23.15 12½" Foc. 12.92 Silt 20.35

Sat night visitors record on [illegible]

13

Date July 3-4/60 Observer Hy - Hv Julian Day 2437119.5

⊙ 102° 00' 44.4" 3431.1"

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.	Hour Angle End
25241	HD5001	16 03.6	+17 19	I-12½	IaO	.016	24½°	22:10	22:26	2	1° 12½'
25242	"	"	"	"	"	.008		22:40	23:48	3	0° 14½'

HD145001

July 4/60

Gg – Hartmann Focus Test

25242F

	P.H.	Focus
T = 18.6°C	0	1292
103a-O	3	1291
July 3/60 1PH#2	6	1290
	10	1289

Gas Development Tests: The following plates were put in spotter & developed in D-19

6" aD5 – spotted for 3½ᵐ, Developed for 3ᵐ, 3½ᵐ, 4ᵐ, 4½ᵐ, 5ᵐ, 5½ᵐ

the 103a-O developed for 4, 4½, 5ᵐ, spotted for 3½ᵐ.

Dome Temp.....

Focus.....

Dome Temp. [illegible] + 5

Transparency Conditions .....

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
$01^h 02^m$ W	17 10	1	6.1	G4	2-2	STD VEL set 6 8021 8025	f
$02^h 14^m$ W	17 12	1	"	"	2-2-2	" " 8026	f

Trial for more than 1 hour to step R.A. & M. Stars from the King Velocity

Gq Exposure Tests — Jul 4/60

one 103a-O in spotter for 45m & developed ½m longer than Kodak specifies

one II aO in spotter for 54m (should be from 45m) and developed 1m longer than Kodak specifies

Focus Set at 12.91

15

Date July 4-5 Mon-Tues Observer DH - Hty Julian Day 2437120.5

⊙ 102° 57' 58.5" 3430.7"

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.
25243	HD 144 579	16h 01.5m	+39° 24'	I-12½	103a-O	008	+18°C	2148	22 10	1
25244	MWC 312 HD 180389	19 11.3	+12 56	I-12½	103a-O	008		2255	2337	2
~~25245~~	~~HD 183143~~	~~19 23.0~~	~~18° 05~~							

Tty - July 5 - Hart. a - Focus Tests

25244 F3,4 using P.H. 3+4 mm.

P.H. setting	Time	Exp.	T = 16.6
0	12.9	1/8	a = 16.0
3	.71	1/8	
6	.50	1/8	
10½	.87	1/9	

Dome Temp. +60°F

Focus 12.91

Dome Temp.

Transparency Conditions Cloud... early
230, Cloud over

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
0^41^m W	+39° 14'	0	7.2	G8	2-2-2	Std Vel Set 3 Sens 7 8046 – 8050 4 counts	Good
01 03 E	+13 06	0	7.7	B3 n e	2-2-2	Be Set 3 Sen 8 8052 – 8062 10 counts	Good
						Clouds rising in North.	
						Shut down at 2:45 EDT due to clouds.	
						32 ph. + 2 in box. (1,215).	
						Much difficulty setting RA, Dec; of declination DH	
						Flashlight requires new batteries	

Date Tues July 5-6/60 Observer L-H Julian Day 2437121.5

⊙ 103° 55' 06.2" 3430.7

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H
25245	HD 174886	18 47.7	-10 21	I-12½	E-103A₀	Set .008	19.0	21 35	22 30	1
25246	MWC 320	19 41.3	-05 44	"	"	"	19.0	22 50	00 13	2
25247	HD 183143	19 23.0	+18 05	"	"	"	18.0	00 24	01 48	3
25248	" 195572	20 [illegible]	[illegible]	"	"	"	16.0	02 [illegible]	02 [illegible]	4
25249	" 203064	21 01.7	+41 [illegible]	"	"	"	15.0	03 [illegible]	03 [illegible]	1
	[illegible] T. [illegible]					"				

Tues—July 6 Hartmann Focus Tests

25249 F1,2 using P.H. 1 & 2

Temp. T = 15.0°C.

P.H. setting	Focus	Type
0	12.92	10/5
3	12.91	10/5
6	12.90	10/5
10½	1[illegible]	9/7

Dome Temp. [illegible]
Focus 16
Dome Temp.

Hour Angle Std

Dome Temp. 59° F

Focus 12.92 ← 12.91

Dome Temp. [illegible]

Transparency Conditions .....

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
1 34 E	-10 12	0-1	8.1	B_{3c}	2-2-2	MWC 307 Be prog Sens 8 072	fair
[illegible]	05 52	0-1	8.5	B_{5A}	2-2-2	" " " 8 085	good
[illegible]	18 [illegible]	[illegible]	6.7	[illegible]	2-4	MWC 317 " " Double Exposure 7 3097-3104	good (Overlap)
[illegible] W	44 03	[illegible]	7.2	B_{1-5c}	2-2-2	" " 7 3106 - 09	fair (Overlap)
[illegible] W	42 42	[illegible]	7.1	$B_{5(6)}$	2-4	" " 7 3112 - 3115	fair
					10/8		o.k.
						2 PH — Tau G	

19

Date Wed-Thu-Jul 6-7 1960 Observer Gq-Hr Julian Day 2437122.5

⊙ 104° 52' 16.9" 3430.5

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.E
25250	HP 164284 mw C.278	17 55.3	+04 22	1-12	103a0	.008	21.5	21:41 46 52	54 :48 :50 :54	2
25251	HL 183143 (one of them)	19 22.0	+18 05	1-12	103a0	.008	21.6	22:23	23:27	3
25252	θ Lyrae	19 12.9	+37 57	1-12	103a0	.008	21.6	23:40 :43	:43 :45	4
25253	HD 195407	20 26.0	+36 39	"	"	"	21.8	0005	0043	1
	[illegible]	[illegible]	07.B.	"	"	"				

Dome Temp. 64° F

Focus 12.91

Dome Temp.

Transparency Conditions Clear

gibbous moon in south.

20

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
0h21E	+04 19	0-1	4.8	Bone	2-2 3-3 3-3	Setting 2 3 8 — 2 con's 3 con's 1 count | Same 5 | Bo Prog | 35-37 37-40 40-41	very badly fogged
0h16E	+18 09	0	6.7	B7 Ia	2-2-2	Setting 5 (right ascension) Same 7. | MK Std. | 8142-50	fine
0h47E	+38 00 22	0-1	4.46	Ko II	2-3 3-2	Setting 3 7 Same 5 | MK Std | 51-57-51 47-51-47	fine - good.
1h02E	36 47	0	7.7	B3e	2-2-2	Set 3 Hd Be #8 8165 8174 | Field check with 24368	fine
					10/8	" 8	OK

2 P. Hr. on Today

Clouds after 0100

Need New Prog. Same 10° Lag

2nd half also

What about the OB stars??

Do for — even first half?

21

Date July 7/8 Thurs/Fri Observer Hd-Pt Julian Day 2437123.5

⊙ 105° 49' 27.4" ; 3430.6

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H
25254	Mer.	18h 26m	-18 30	I-25	IIa-O	008	24°	2224		4
								2225		
								2226		
								2227		
								2231 (Dead time KT/8)		
	Jupiter	17h 44.9m	-23 07	I-25				2252		
								2254		
	(N. Tropical Belt)							2258		
								2303		
								2309		
25255	Jupiter				IIa-O			2314		1
	Equatorial							2315		
								2317		
								2320		
								2321		

ome Temp..... 68 F

ocus.....

ome Temp.....

Transparency Conditions .....

July 7 Changed to I-25. I12 was set I25
focus 12.91 from
Tilt 20.35 Tilt 23.15

our Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
	-19° 27'					set 0 : 10 counts : Sens 4	
						" 1 : 15 " "	
						" 2 : 20 "	
						" 3 : 25 "	
	~~-19° 07~~					" 4 : 40 "	
	-19° 07					set 6 : ~~8~~ 8 counts	
						" 7 : 12 "	
						" 8 : 15 "	
						" 9 : 27 "	
						" 10 : 5 "	
	-19° 07					set 0 : 5 counts	
						" 1 : 3 "	
						" 2 : 12 "	
						" 3 : 18 "	
						" 4 : 27 "	

Date July 7/8 Thurs/F. Observer Hd. 24 - Br Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	F
25235 (Cont'd)	Regulus (N. J N. Tripod Bell).	17h 44.9m	-23° 07'	]-25	II a-O	.008	24°C	2330		1
								2332		1
								2334		1
								2337	assumed Ca	1
								2336 (41m.)		
25236	Saturn (center Bell).	19h 05m	-22° 12'	]-25	II a-O	.008	24°C	0000		4
								0004	0012	4
								0012	0024	4
								0024	0035	4
	Rings Rings.					Rings Rings		0046	0054	4
								0054	0111	4
25237	HD 192044	20h 07s	-26° 11'	I 2E	103a O	.008	24°C	0136	0245	2
	Focus Test			"	"	"	24° C			

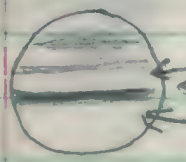
Dome Temp. 68°F

Focus

Dome Temp. 58°F

Transparency Conditions

Large(?) cirrus cloud @ 0210 then cirrus over much of sky by 0400.

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
	-29° 07'					set 6. 5 counts (Dens 4)	
		No semis found				" 7 8 "	
		Equatorial				" 8 12	
		N top belt				" 9 18 "	
		No S Trop. belt				" 10 27 "	
0138m							
	-22° 14'					set 0 #1 5 counts (Dens 4)	
						" 1 " 17 — 25	
						" 2 3 (12) 25 — 37 12	
						" 3 " (4) 37 — 55	
						" 5 5 (5) 55 — 72	
						" 10 4/12 60 — 72	
N 55m							
h 12m W	26° 10'	0-5	9	Bene	2-2-	MCW 331 Exposure at 5 [illegible] 8873 Female.	
					10/8	Star 6 of in cloud & tracking by at dawn after 4.2 counts	OK
						1 Plt in frig, 4 in box	

Large(?) cirrus cloud @ 0210 then cirrus over much of sky by 0400.

25

Date Fri-Sat Jul 8-9/60 Observer Gq- Julian Day 2437 124.5

⊙ 106 46 38.0 3430.8

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.I
25758	HD 164284 MWC 278	17 55.3	04 22	I-24	103a-O	.008	25	21:30-	21.4⊛	3
	Focus: Test				O.T. B					

⊛ effective.

Dome Temp. 73°F

Focus 15.57

Dome Temp.

Transparency Conditions Scattered Clouds in South 2.6

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
	04 18	0-1	4.8	Bsma	4-	Set 3 5897 — 8901 Re Pntg	Good
		12/10	setting 9			Closed Up — due to Solid Cloud at 23:00 4 P.M in June	

Saturday July 9-10 1960 N.L.
About 175 visitors around 8 PM
Heavy thunderstorm in city in afternoon; some cloud left at midnight

27

Date Sat-Sun Jul 9-10/60 Observer L – Gf Julian Day 2437125.5

⊙ 107° 43' 48.8" 3431.1

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.E
25259	HD 182307	19 21.3	+24 44	I-25	103a0	.008	23.	00:01	00:55	1
25260	HD 195592 MWC347	20 27.2	+43 59	I-25	"	"	24.0	1:25	2:39	2
25261	HD 200310 MWC360	20 57.6	+45 46	"	"	"	24.6	2:51	2:59	3
25262	HD 198478 MWC353	20 45.5	+45 45	"	"	"	"	3:16	3:[illegible]	4
	FOCUS TEST			OTB						

Low Transparency

Clouds [illegible]

Dome Temp. 70

Focus 15.53

Dome Temp. 69

Transparency Conditions O. K. – cloud in south west.
01:30 cloud streamers all over all night
cloud in south. all night

28

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.		REMARKS	Quality
$0^h 27$ W	+24 51	0-1	6.7	F6 V	4-4-4	Set 5	~~H.V.~~ 15-22 8907 23 Sens 6 (shield in middle)	(under standard 1½ m Cass)
$1^h 06$ W	+44° 15'	0-1	7.2	B1.5e	4-4-4	Set 5	Hd Be. Sens 7 { 8929	
$0^h 54$ W	+46° 01'	0-1	5.2	B3ne	4-4-	Set 5	Hd Be Sens 5 { 8956 63 (7)	
$1^h 36$ W	45° 59'	1	4.9	B2.5e	4-4-4	Set 5	Hd Be Sens 5 { 8973 80 (7)	
			20/16			Set 9		

2 P.H. in focus

	MC	SC	ME	S
July 11	+1m42	-1m41.5	+2	+21m26.0

(7) = total of 9

29

Date Mon-Tue July 11-12/60 Observer GEJ Julian Day 2437127.5

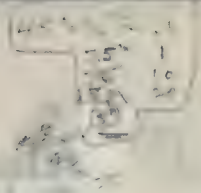
⊙ 109 38 11.3 3432.0

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.E	Hour Angle End
25726	HD 165701	18 00.7	+04 39	F.P.	103.0	.008	28.3	23:42	00:01	1	
	"	"	"	"	"	"	"	00:01	02:51		F-W

Dome Temp. 75°F

Focus 15.53 (Glass thickness .61)

Dome Temp.



Transparency Conditions O.K. — considerable extinction early in evening. 30

Clouds and quick in sky before 22:00

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
	+04 42	0	7.42	G2V	~~+~~	Focus 15.55 Seen. 7 ~~15 20~~ ~~seen~~ See HV.	Good work
B: 49W	" "				4-4-4	Focus 15.61 09. " 9006 9016 quite 16-24 Short	Focus perfect

7 min test taken but not recorded

increasing haze + thin clouds from closing.

plate was started at wrong focus; switched to setting 9 + did over to 10 counts.

3 ph. in frig.

	MC	SC	ME	S
July 13	+1m42	−1m43.2	0.0	+21m25.5
	MC	SC	ME	S
July 15	−1	−12.6	−0.5	+21m24.4

Date July 14/15 Thurs. Observer Hd - Pt Julian Day 2437130.5

⊙ 112 29 48.8 3433.7

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H
2536	49 Lib	15 54	-16 14	I-25	127 a0	.028	27.0	20 51	21 40	2
	Focus	7 Lib	OTB					21 57		
2535	HD 145001	16 03.6	+17 19	"	"	"	22.8	22 00	22 36	3
2538	Jupiter	17 41.4	-23 07	"	103a0 IIaO	.008	22.4	22 49	2252	3
	"							2253		
	"							2256		
	"						22.8	2301	2304	
2540	Saturn	19 03.0	-22 16		127a0	.008	22.6	2315	2324	3
	"							2326		
	"							2343		
	"							0004		
2541										
2542	HW 381 HD 197044	20 07.8	26 11.2	I-25	103a0	.008	22.0	0025	0125	4
2543	HW 381 HD 198775	21 00.4	07 47				21.6	0138	0334	1

Dome Temp.
Focus
Dome Temp.

Dome Temp. 16 F

Focus 15.53.

Dome Temp. 59°F

Transparency Conditions good

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
56m W	-16° 23'	O	6.00	F8 I	4-4-4	set 5 Sc HV cams 6 9027 9036½	good
					20/16	set 8 ~~cams 6 9035~~	o.k.
1h 39m W	+17 11	"	6.1	G4	4-4-4	set 5 Std. Vel cams 6 9033 - 9046	fine
	-73 07					set 1 N. Tropical Belt. (long slit) cams 4 9049 - 9064	
		4 spectra shown H+K stars fly.				set 2. " " 9065 - 9085	fine
						set 4 N. of N. Tropical Belt. " 9086 - 9101	
						set 5. " " 9101 - 9121	
	-17 48	h spectra check at H+K				set 8 Belt, top of " 9122 - 9137	
						set 9 " , top of " 9137 - 9157	fine
						set 10 Rings " 9157 - 9172	
51m W		Note: set 6 →				set 6½ Rings " 9172 - 9172	
						~~set 5~~ ~~cams 6~~ ~~9173~~	
30m W	+26 74	O	5.9	B8 III	4-4-4	set 5 Ba cams 6 9173 - 9201	fine
1h 48m W	68 02	O	7.2	B5 e	4-4-	set 5 Ba cams 7 9202 - 9222	fine

1 p.h. in rings.

Date Fri-Sat Jul 15-16/60 Observer Cg - Hr Julian Day 2437131.5

⊙ 113° 27' 02.5" 3434.3

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.	Hour Angle End
25269	HD148816	16 25.6	+04 26	I-25	103a0	.008	25.0	21:06	23:28	2	27 W
25270	HD177648 MWC 310	19 00.5	+23.11	"	"	"	25.2	23:36	03:40	3	
	[illegible]										

Dome Temp. 73°F 11:46 — Transparency Conditions Clear — 34

Focus 15.57

Dome Temp.

Apex Aurora in zenith and in north 23:00 (Aug 1)

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
2h18m W	+04 19	0-1	7.82	F9 V	4-4-4	Sens 5. | Sens 8. | Sa HV 9227 9281 · (40 - 60 cm/sec)	good
	+23 18	1-0	7.5	B3e	4-4-4	Sens 5. | Sens 8 | Ba Prog. | 9283	good.
					20/16	" ? Thin Clouds Toward [illegible]	ok.

Plate 25289 has overexposed spots (ground glass not even ?) Possibly caused by calibration lamp # 25270 (Be Proj. Hd) was left on and developed together. Hd

Exposure

1 P.H in July

	MC	SC	ME	S
July 18	-1.5	-16.9	+2	+21m23.2

Last observer left a plate in spotting. (Spectral or Im. Proj.)

35

Date June/July 19-20 1940 Observer VBy-L Julian Day 2437135.5

⊙ 117 16 03.9 3437.0

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H
25271	M 15	21 28.0	11 39	Newt.	E103Ao			00 40	00 45	
25272	Cyg Loop	20 43.9	30 36	"	IN			01 28	02 14	
25273	M 31	00 40.5	41 03	"	E103Ao			02 40	02 45	
25274	" S.P.	00 39.4	40 43	"	E103Ao			02 59	03 04	

Dome Temp.
Focus
Dome Temp.
Hour Angle Ind

Dome Temp.....

Focus.....

Dome Temp.....

Transparency Conditions Clearing during night

Sat July 16. 210 visitors showed
Hd, Hty, KM. 4 and M13 with 7¼" RASC showed H, h

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
						no Site	Sun
1 05 W						no Supersens. H_2O 3mm.	"
						no Site	"
						no Site	"

	MC	SC	ME	S
July 20	-2	-20.7	+0.5	+21m21.5

Date Wed. Jul 20-21/60 Observer vdB, Hr + Sg Julian Day 2437136.5

⊙ 118 13 20.9 3437.7

Plate No.	Object	R.A. 1900 1960	Declination 1900 1960	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H
~~25275~~		~~18 02.7~~	~~-22 36~~	Newt	Fa		4 C	h.		
25275	filaments	18 02.7	-23 39'	Newt	I-N			21:51	22:06	1
25276	"	20 13.	+39 42	"	"			22:48	23:15	2
25277	"	20 18	+39 17	"	"			23:32	00:02	1
25278	"	20 21	+39 22	"	"			00:31	01:01	
25279	M31	00 41	+41 03	"	103a0			2:22	2:32	
25280	"	"	"	"	"			2:35.	2:38	

Dome Temp.
Focus
Dome Temp.
Hour Angle End

July 22

Dome Temp. 62°F

Transparency Conditions Clear

Focus

Dome Temp.

(T = N plates, I no. of plates)

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
	-23° 37'						
						FIRST H PLATES DEVELOPED!	
						Thurs July 21 L & McR (David MacRae) changed tack to Cass.	
	MC	SC	ME	S		Hd, L, and McR Tried to measure	
July 22	-1	-23.6	+4.5	+21m19.9		the reflectance of the Cass and Newt mirrors by (a) MacBeth Illuminometer (borrowed from Astrophysics and (b) by Hd's exposure meter.	
						The results (not entirely consistent) in blue by O:	
						Cass ~ 40-50% Newt 70 to 80%	
						All tests indicated Cass must have lost Ray but H were discouraged in summer of 1952.	

35

Date Fri/Sat July 20th Observer PZ - H.C Julian Day 2437138.5

0-120 07 56.9 3439.0

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.E
3525 B1	MWC 349 HD 193793	20 17.7	+35 57	1-37	103a-O	.006	21°	2307	0013	-
3526 B2	MWC 349 HD 193793	20 17.8	35 52	"	"	"	21°	0013	0049	3

Why?

Dome Temp. 73°

Focus 15.58

Dome Temp.

Transparency Conditions hazy

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
[illegible]	28 05	2	5.7	0	52	4-4.4	2nd 5 41-8 = 9327-9357	fine*
[illegible]	38 15	1	7.1	B	1.3	2 47 9363-9368	too weak
							center to red

* Plate hopeless for radial velocity because of great temperature change.

1960 July 23-24 Sat. N Pt. NB, DMR
Showed first group Jupiter, second group Saturn. About 130 meteors. The big climb above the ground was done before starting the second group.

41

Date Sat/Sun July 23/24 Observer PT DPK Julian Day 2437139.5

☉ 121 05 15.9 3439.6

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.E.
25283	MWC 317 HD 193143 Trans	19 23.0	+19 01 Tail	1-36	103aO	100μ	37°	10 05	01 05	1
25284	MWC 4150 HD	00 39.7	+47 44	1-36	103aO	11	24°	03 21	03 51	2

Dome Temp. 62°F

Focus 13.55

Dome Temp. 60°F

Transparency Conditions Clear

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
3 30 W	+49° 15'	0	6.7	B9 Sep	4-4-4	set 5 (slit wide open for 3 min.) 9385 - 9402	Weak but OK. Counter to need *
					70/16	set 6	
119 E	+48° 05'	1	4.7	B4 Sep	4-4-4	set 5 9405 - 9413	fine

1 p.h. in fig.

* I doubt if the focus was set correctly.

Date Sun - Mon Jul 24-25 Observer DH Julian Day 2437140.5

⊙ 122 02 35.5 3440.02

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End
25285	NWC 246 HD 194339	20h 12m9	+35° 04'	I-26	103a-D	006	25°C	22° 04'	23 19	
25286	NWC 246 HD 194339	20h 20.0	+35 10	I-26	103a-D	003		23 22	23 48	
25287	NWC 246 HD 194339	20 26.0	35 39	"	"	"	26°C	00 08	00 42	
	" "	" "	" "	"	"	"				

Dome Temp.
Focus
Dome Temp.

Dome Temp. 74°E

Focus 15.57

Dome Temp.

Transparency Conditions Light cloud at set.

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
31 01 E	+31° 17'	2-1	7.0	B0n	4-4-4	H.I. B. star Set 3 Sect 9426	Good
2 41 E	+31° 31'	0	7.7	B3nc	4-4-4	H.I. B. star Set 5 Sect 7HNE	fine.
1 30 W	36 33	0	7.7	B3c	4-4-4	" " " " 8 9457	fine
					2/16		trans OK
						2 B.H. in Trig.	
	July 25						
	MC	SC	ME	S			
	-1	-28.2	0.0	+21m19.0			

45

Date July 25 1930 Observer H.L. Mc Hy Julian Day 2437141.5

⊙ 122 59 55.7 3440.8

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.
25288	HD 198607	20h 16.7	+57 47	I-25	103a-O	.008	26° C	20h 35m	22 07	1
25289	HD 197213	20 20.4	+41 12	"	103a-O	.008	26.5°	23 17	00 45	
25290	MWC 366 HD 203374	21 16.7	61 25	"	"	008	21.2°	00 14	00 50	2
25291	MWC 376 HD 206773	21 19.1	+57 17	"	"	"	26.2°	01:00	02:00	
25292	MWC 381 HD 208682	21 52.9	+64 52	"	"	"	26.2°	02:07	02:27	3
25293	MWC 394 HD 217050	22 52.7	+48 09	"	"	"	26.2	02:34	02:44	3
25294	MWC 395 HD 217543	22 56.2	+36 10	"	"	"	26°.1	02:50	03:20	4
25295	MWC 407 HD 224559	23 53.8	+45 52	"	"	"	26°.1	03:25	04:00	
	Focus test	OT B								

Dome Temp. 70°
Focus 15·58
Dome Temp. 63°

Transparency Conditions Good

Exp. Times good (all plates a little weak)

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS		Quality
W 3 31	57 38	0	7.36	F6 IV	4-4-4	Set 3 SiHV prog.		Good
W 0 12	11 34	1	6.31	G2 I	4-4-4	Set 3 SiHV prog.		Good
W 0 30	61 44	1	6.6	Bone	4-4-4	" 3 BeProg.		Weak
W 0 17	57 33	1	7.0	Bone	4-4-4	" 5 " "	60 m.	good
W 0 30	65 09	1½	5.8	Bone	4-4-4	" " " "	20 m.	Good
W 0 19	48 29	1	5.2	Bone	4-4-4	" " " "	10 min	Good
W 0 20	38 30	1½	6.4	Bone	4-4-4	" " " "	30 m	too weak
W 0 02	46 11	1	6.5	Bone	4-4-4	" " " " thin cloud.	35 m.	too weak
					20/16	" 9		Focus Off

NO P.H.; BOX EMPTY.

July 27

MC	SC	ME	S
-1.5	-31.4	-0.3	+21m 17.7

47

Date July 27/28 1960 (Wed/Thurs) Observer Hd-H R - H v Julian Day 2437143.5

⊙ 124 54 37.9 3441.8

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.I	Hour Angle Int
25296	HD 138367	15 26.7	+57 47	I-25	103a0	.008	26.3	20 47	21 53	J	
25297	HD 168021	18 12.7	−18 39	I-25	103a-0	.016 ~~.008~~	26.6	~~22 07~~ 22 13	23 09		
25298	HD 150398	19 11.3	+12 56	I-25	103a-0	.008	26.3	2320	03 16		
	From 7 at 07B			"	"	"					

Dome Temp.
Focus
Dome Temp.

Dome Temp. 74

Focus 15.59

Dome Temp.

Transparency Conditions GOOD

0100 Thin Clouds, Haze?

Telescope unstable

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
12h 30	+57 35	1	7.36	F6II	44-4	SeHU Set 3 Sens 7 9551 9576	good
W 58	−18 36	0	6.7	Bo	4-2	Set χ⁸ Rad. OB (too faint for 008) Sens 7 9578 9580 9602	weak
36W	+13 04	1	7.7	B3nne	4 4-4	Set 3 Be Proj. Sens 7 9609-11	weak
					22/16	" 9	

1 P.H. on Ping!

Date Thurs Fri July 28/29 Observer Hy Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.F
		Dec Slow-Motion failed to operate.								

Dome Temp.
Focus
Dome Temp.
Hour angle Init

Dome Temp.....

Focus.....

Dome Temp.....

Transparency Conditions .....

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality

July 29 MC / -1.5 SC / -34.3 ME / -2.2

51

Date July 29/30 Observer -Hy Julian Day 2437145.5

⊙ 126° 49' 22".2 3442.9

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.E	Hour Angle Ind
25299	AD 187923	19 47.4	+11 23	I-25	103a0	.008	24½°C.	01:14	3:30	L	

↑ Always recorded wrong plate no.

Dome Temp. 73°

Focus 15.68

Dome Temp.

Transparency Conditions fair

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.		REMARKS		Quality
3 54	11° 33	1	6.31	G2V	4-4-4	Set 8	Se HV	Lens 6	9635 9647	l. weak

2 p.h. in frig.

Date July 30/31 Sept/Jan 1960 Observer vdB – Gyf Julian Day 2437146.5

⊙ 127 46 45.1 3443.6

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.E
25300	HD 1a 2445 / MAK 332	20h 09m 8	+26°02'	25"	103a0	.008	24°	23h 00m	00:26	1
25301	HD 200580	20 59.2	+02 36	1.25	103a0	.008	24.0	00:41	3:51	2
	Focus Test — 0 TB									

Dome Temp.... 65

Focus..... 15 55

Dome Temp... 59 ....

Transparency Conditions ..... Good .....

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
C 31 W	21° 11'	0-1	7.1	R2	4-4-4	Be Sev. BWC 332 Seq 7. 16-30 643 - 663	fine
B 07 W	02 52	0-1	7.86	F9 V	4-4-4	So. HV. Set 5 || Seq 8 || 9665 - 9721 (Field plotted again on 13-2-62) [THERE SHOULD BE A FINDER FIELD FOR THIS.]	l. weak
					20/16	Set 9.	c. sl to v.

4 P.H. + 1 (?) in yellow box

Sat. Night

wdB, Eg, K.M.

130 Guests + 2 dogs

Sl. Elevat. N13.

55

Date Sun. July 31 Aug 1/60 Observer L- Hr (G.S.) Julian Day 2437147.5

⊙ 128 44 08.7 3444.0

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H
25301	HD 165401	18 00.7	04 39	I-25	E-103Ao	Sat .008	22.9	20 45	22 25	2
25303	MWC 320	19 41.3	05 44	"	"	"	22.8	22 30	03 26	3
	Focus 7 at 07B			"	"	"				

Dome Temp. 68°F

Transparency Conditions Good

Focus 15.53

Dome Temp.

0200 - few clouds

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
0 42 W	04 39	0	7.42	62V	444	Sc.HV Seno8 736 796	good
0 40 4 W	05 55	1	8.5	Bone	44-4 10/16	Be proj " 799 839 5 of 5	good
							Focus o.k.
						3 P. Hour Angle.	
						Hour Circle for last Pos.	

57

Date Aug 1/2 1960 Observer vdB – Hy Julian Day 2437148.5

D. + MeR

⊙ 129 41 32.7 3444.7

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp. °C.	Starting Time E.S.T.	Ending Time E.S.T.	P.I
25304	29 Cyg	20h 12.7 (1950)	+36° 39'	I-25"	103a O	.008	24.5	22h 00	22h 05m	1
25305	β Aql	19h 50.7	+6° 09'	I-25"	103a O	.008	24.5	22h 25	22h 28m	2
25306	160398	19h 13	+18° 56'	"	"	"	"			5
25306	Focus Test									
25307	MWC 397 HD 218393	23 02.6	+49 40	I-25"	103a O	.008	23.5	01:27	03 32	1

Dome Temp. 72

Focus 15.56

Dome Temp.

Transparency Conditions Thin Cloud

Clouded out 10.40 p.m.

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
1h43W	36°42'	1	5	?	4+4+4	Be AF prog	fine good
1h02mW	6 10'	1	3 90	S8	None	MK Standard	good
			7.7	B3 e		MW 312 (Be prog)	
							c. sl. to red
0h46W	+50° 01'	1	6.8	A4e	+-4-4	Sec 7 Be prog. 20<9921 9930 only 9 m.	weak

3PH in Fridge

clouded out

	MC	SC	ME	S
Aug. 3	-1.5	-13.0	+0.5	+21m43.2
Aug 5	-2	-45.9	-4	+21m13.2

57

Date Fri/Sat Aug 5/6 1960 Observer Hal — Julian Day 2437152.5

⊖ 133 31 15.7 3447.9

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.I.
25308	Jupiter N trop belt (Band scan)				IIaO	008	25.3	21:05:30	7:10	
	"				2 2-mm exposures	Log slit	26	07:50	10:30	
	"						26.3	14:30	15:10	
	Bright Band						26.4	21:10	23:30	
	"						26.6	23:30	26:30	
	"						26.2	27:30	30:30	
	Dark Band (1/2 mm slit)						26.2	30:40		
	Moon (continuous)							46:14	46:20	
							26.4	47:20		
							"	48:10		
							"			
25309	MOON				IIaO		26.4	53:00		
							"			
							"	54:00		
							"			

Dome Temp.....

Focus 15.57 (*)

Dome Temp.....

↗ Found focus set at about 15.70. Was it set wrongly last time?

Transparency Conditions O.K. clouds to N

60

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
		0				Set 0 . 8 counts. Sky dilution slit	
7. Visitors [illegible]	← ½ top (dark belt) ← bright area					Set 1 . 12 counts.	
						Set 2 : 18 counts.	
						Set 3 . 8 counts.	
						Set 4 : 12 counts	fine
3h 11	(cloudy N)					Set 5 : 19 counts	
						Set 6 : 12 counts.	
						Set 7 : 4 counts	
						Set 8 : 6 "	
						Set 9 : 9 "	
						Set 10 14.	
						Set 0 4 "	
						Set 1 6 "	
						Set 2 9 "	
						Set 3 14 "	

Sky was pretty hazy with thin clouds but fairly clear in the zenith and at times

61

Date Fri/Sat Aug 5/6, 1960 Observer Hld — Hy Julian Day 2437152.5

⊙ 133 31 15.7 3447.9

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.
25309	Software Ball)			I-25	IIaO	(cont 8 l-g	26.3	22:03:15	22:27:10	
	(l-g 3)						26.3	22:3[illegible]	22:[illegible]30	
								[illegible]	[illegible]	
25310	δ Cyg	20 15.6	+39 56	I-25	103aO	.008	26.3	23:[illegible]	[illegible]	
25311	α Cyg	20 35.0	+44 55	"		"	11	23:55	56	
								:57	:59	
25312	α Lyra	18 35.6 (1960)	+38 45	I-25	103aO	.008		00:21	00:32	L
		1900 {18 33.6, +38 41}						00:24	00:24	
							26.5°C	00:27	00:27	
								00:30		
								00:31		
25313	λ Cyg	20 43.5	+36° 07	I-25	103aO	.008	26.5°C	01:24	01:37	
25314	55 Cyg	20 45.5	+45°45'	I-25	103aO	"	26.3°C	01:40	02:05	
25315	σ Cyg	21 13.5	+38°59'	I-25	103aO	"	26.3°C	02:10	02:14	
25316	61 Cyg	21 21.7	+38 14'	I-25	103aO	"	26.3°C	02:21	02:10	

Dome Temp. 61°F

Focus

Dome Temp. 64°F.

Transparency Conditions

Much Cloud in South 22:30
intermittent cloud all night.

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
		0				Set 4. 0:40 / 152 / Same 4. Thin cloud	fine.
34W		0				Set 5 / 152 / 12 / Set 4 Very cloudy	
						Declination Slow-Motion did not work in one direction until it changed the Dec.	
0 06 E							
0 03 E							
0 01 E	440 10	0-1	2.32	F8 Ib	12s	Set ⊙ 2 counts / 4 3 counts / 8 4 counts || Same 4 || MK I Std	fine
0 07 E							
0 05 E	+05 11	1-0	1.33	A3 Ia	12s	Set ⊙ 2 / 4 3 / 8 4 || Same 5 || MK I Std	l. strong
0 02 E							strong
		1-0	1	A0 V	—	set 2 about half light cut at by drive	
					—	(00:24:05 ± 00:24:15 at set 4). full light	
					4-4-4	00:27:00 ± 00:27:20 set 5 " "	sl. strong
					—	few seconds set 8 " fine	
	+29 02				—	fine " set 9 " "	
11h 21m	+36° 23	1	4.47	B5 V	4-4-4	set 4 same 4 same 5 02:17 MK Std	fine
11h 58m	46 02	D	4.89	B3 Ia	4-4-4	set 5 same 5 same 5 02:47 MK Std	fine
11h 4m	39 16	0	4.28	B3 Iab	4-4-4	set 5 same 4 same 5 03:15 MK Std	fine (centre guided)
12h 27m	36 71	1	5:4	B0 Ib	4-4-4	set 5 same 6 cloud same 4 01:59 MK Std 01:51	fine

Date Fri/Sat Aug 5/6 1960 Observer - Hy Julian Day 2437152.5
0 133 31 15.7 3447.9

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.
25317	ψ CAS	01 13.8	+57°42	I-25	103a O	.008	26.3°C	03:20	03:34	1
25318	η Per	02h 43.4	+55°29	"	"	"	"	03:47	03:51	3
25319	Focus Test	on B								

Dome Temp. 63°

Focus

Dome Temp.

Transparency Conditions Moon + Haze

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
= 1h 04m	+57 02	0	525	FOJa	4-4-4 set 5 secs 5 (MK Stds) 8 mts	0270 0278	fine
= 2h 22m	+55° 46	0	393	K3Ib	4-4-4 set 5 secs 4 (" ") 4 mts	0280 0284	weak guidings

centre sl. to red.

1 ph. in fig.

These plates developed Sat Aug 6 '64

6s

Date Sat/Sun 1960 Aug 6/7 Observer SP (MP / MCP) - MCP Julian Day 2437153.5

⊙ 134 28 43.6 3448.8

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.I.	Hour Angle End
25320	HD 100540	10 54 1	+62 36	61	103a-O	.033	24.5	0041	0207		
25321	HD 101412	11 39 17	+62 53	61	103a-O	.033	24.5	0218	0425		
25322F	FOCUS	TEST		OT	B						

Dome Temp. 68

Focus 15.56

Dome Temp. 67

Transparency Conditions hazy but mostly clear in east.
162 + visitors. Showed M13
+ RASC telescope

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
01 59	02 48	2	7.6	F7V	444	SeHV Sep 8 Set 5	295 (weaken thig.) good
10 42	+18 15	1	8.3	G5V	444	SeHV Sep 3 Set 3	315 317 321 d. weak
						(new thermometer)	c. sl. to red (centres spectrum slanted?)
						are hard to strike!	
						2 P.H. in field	
			Aug. 8	MC -2.5	SC -61.2	ME 0.0	S +21m10.8

Date 9 pm Aug 8-9 /60 Observer L - McR Julian Day 2437155.5

⊙ 136 23 42.4 3451.2

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.E	Hour Angle End
25322	HD 173003	18 38.1	+01 44	I-25	E103Ao	set .016	22.1	20 41	22 43	4	1 hr W
25323	HD 205060 MWC 371	21 27.7	42 16	"	"	.008	22.0	23 10	0045	1	W of
25324	MWC 395 HD 217543	22 56.3	+38 10	"	103a0	.009	22.0	0050	0134	2	E of
25325	HD 221830	23 30.4	+30 27	"	"	.008	22.0	0148	0428	3	1 hr W
	FOCUS TEST		OTB								

Dome Temp.
Focus 15
Dome Temp.

Dome Temp. 68°F
Focus 15.52
Dome Temp. 59°F

Transparency Conditions Good

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
1 00W	-01 40	O	7.7	B4	2-2-2	Radcliff OB Lens 8 414 456	weak
0007	42 33	O	7.1	B5ne	4-44	Be Prog " 8 469 519	good
0032	+38 31	O	6.4	B3ne	4-4.4	Be Prog Set 5 & Lens 6 527	good
148W	+30 48	O	7.44	G2II	4-44	Se HV Prog Set 2 Lens 7 (nearly 100% Lumena) 528 558	fine

Focus o.k

Dim light on Extr mir, non-uniform

2PH. in Refr.

	MC	SC	ME	S
Aug. 10	-2.5	-0.8	-5.5	+21m 11.1

Date Wed-Thu Aug 10-11/61 Observer - Hy Julian Day 2437157.5

⊙ 13 8 18 46.2 345 39

Dome Temp.
Focus 15
Dome Temp.

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H	Hour Angle End
25326	13 Cep	21h 51.5	+56 08	I-25	103a O	.008	21.0C	00h 33	02 23	4	
25327	9 Cep	21h 35.2	+61 38	"	"	"	20.8C	02h 28	02 40	1	
25328	19 Cep	22 02.1	+61 48	"	"	"	20.7C	02 44	03 02	2	
25329	HD210221	22 03.8	+52 49	"	"	"	20.2C	03 05	03 45	3	
do.	focus test OT B										

Dome Temp. 64° F.

Focus 15.50

Dome Temp.

Transparency Conditions much thin cloud + haze

70

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS		Quality
1h31m	+56° 28'	0-1	6.01	B8 I_b	4-4-4	set 5 sens 6 (MK std.) Sc 5	0562 0570	good
2h03m	+61° 56'	0-1	4.87	B_2 I_b	4-4-4	set 5 sens 5 (") 8 counts	0571 0579	good
2h00m	+62° 07'	0-1	5.17	O_9 I_b	4-4-4	" sens 5 (") 8 counts	0581 0589	good
N 2h25m	+53° 09'	0-1	6.6	A_3 I_b	4-4-4	" sens 7 (") 20 "	0590 ~~0610~~ 0593	weak could not see

? counts

clouds rising from west

3 ph in frig

Date Thurs Aug 11-12/60 Observer L-McR Julian Day 2437158.5

⊙ 139 16 20.1 3455.4

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H	Hour Angle Ind
25330	~~HD 173433~~ MWC 308 HD 173863	~~18 40.2~~ 18 52.3	~~04 42~~ 59 53	~~I 25~~ "	~~E 1031~~ "	set .016 .008	~~—~~ 24.0	~~20 29~~ 21 40	~~—~~ 22 22	~~4~~ 4	~~—~~ 0.33W
25331	MWC 350 HD 196712	20 34.0	-02 46	"	"	"	23.9	22 31	23 15	1	0.8E
25332	MWC 383 HD 209298	21 57.2	56 14	"	"	"	23.9	23 23	0238	2	1.4W
25333	HD 221830	23 30.4	N30 27	"	"	"	23.9	0248	0434	3	0.3W
	FOCUS TEST		OTB								

Dome Temp.
Focus 15
Dome Temp.

Dome Temp. 72°F
Focus 15.53
Dome Temp. 61°F

Transparency Conditions good after 2140

Lost 3/4 hr because of clouds

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
	-04 38	1	8.1	B0 2-		Radcliff OB Set 8 .595	
0 33W	59 59	1	6.9	B4e	4-4-4	Set 9 Be Prog. " 7 609	fine
0 18E	-02 32	1	6.3	B9e	4-4-4	" " " 7 631	fine
1 44W	56 33	1	8.1	B5e	4-4-4	" " " 8 653	weak guiding
2 06W	30 47	1	7.4	G:D	4-4-4	Set 2 Se HV Prog Sens 7 703 729 Set 8	good (a. variable) a. tossed

3 P.H in fr.

	MC	SC	ME	S
Aug. 12	-2.4	-1.3	-0.5	+21m09.9

Date Fri-Sat Aug 12-13 /60 Observer Hy - Cg Julian Day 2437159.5

⊙ 140 13 55.5 3456.9

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.
25334	HD 154081	16h 58.2	+58° 36	I-25	103a O	.008	24.9C	21:30	00:37	4
	Focus Test						24.7	TB		

Dome Temp.
Room 15
Dome Temp.
Hour Angle End

Dome Temp. 72°
Focus 15.55
Dome Temp.

Transparency Conditions Haze esp. at start.
Much Extinction aft. 23h!

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
4h+5m	+58°32	0	6.80	A3	4-4	Set 5 Ser. 7 | KA 8X8 | 16 min. 0736 0747	l. weak
		2½/16				heavy obscuration	
						5+0 ← (illegible)	c..d to end
						(illegible)	
						Thin cloud over whole sky	
						Closed up 1:00.	
						3 P.H. in fog.	

Date 1960 Aug 13/14 Sat Sun Observer Mr. Mrs. } - Pt Julian Day 2437 160.5

⊙ 141 11 32.4 3458.3

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.
25335	HD 198183	20 43.5	+36 07	I-25	103a-0	.008	124.2	2254	2305.	1.
"	"	"	"	"	"	"	"	2306	2316	1
"	"	"	"	"	"	"	"	2317	2348	1
~~25336~~	MNC 383 ~~HD 200192~~	~~21 57.2~~	~~+56 14~~	F-25	103a-0	~~.008~~	24.0	0053	0119	2
25335-F	Focus TEST			OTB						

Dome Temp.
Focus
Dome Temp.
Hour Angle End

Dome Temp. 70°
Focus 15.64 − .09 = 15.55
Dome Temp.

(Echo I culminating at 10:44½ EDST in SE; gain = zenith at 10.49 EDST;

Transparency Conditions good

168 visitors — showed M13 (and Echo I)
(MR − JB − Pt − McR − Jyg − KM + RASc)

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
0C29 E	+36 21	2	4.5	B6e	6-6	Set 2 SMWC 35-2	good
1015 E	"	2	"	"	—	" 5 Sens 5 Be Prog 764 765 (no comp)	good
3014 W	"	2	"	"	4-4-4	" 8 " " 769 779 786	strong
"	156 32		8.1	B5e	4-	Set 5 Sens 8 Be Prog 790	—
						sets 20/16 Stopped because of approaching clouds — also too low	Focus o.k.

1 p.h. in Sig.

Dr. Mackey: Echo I reached zenith at 2:50 EST. (2:56)

77

Date Mon Aug 15-16/60 Observer L- Cg Julian Day 2437162.5
⊙ 143 06 50.6 +3461.5

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.	Hour Angle Ind
25336	HD 154528	17 00.9	77 48	I-25	E103Ao	Set .008	22.3	20 12	21 24	3	145W
25337	HD 22794	23 38.4	57 31	"	"	"	22.2	21 42	1 02	4	E
25338	HD 22505	23 58.3	+55 06	"	"	"	22.0	1 39	3:35	1	W
25339	HD 24357	3 53.8	+45 52	"	"	"	22.0	3:42	4:28	2	
	F-OCULS T-55				OTB						

Dome Temp.
Focus 15.
Dome Temp.

Hour Angle Ind

Hartmann shutter E & I.

Dome Temp. 72°F

Focus 15.52

Dome Temp.

Transparency Conditions Clear All Quar

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
1 45W	77 45	0-1	6-7	A0	4-4-4	Spec Bin. M Sens 7 813 832	good
1 17E	57 52	0-1	7.76	G2 5	4-4-	Gr 9 H.V. Sens 8 833 902	good
0 52W	55 18	0-	7.6	B1 0	4-4-4	MWC407 Bec Prism Sens 8 954	good (finishing)
1 52W	+46 12	-0-1	6.5	B3 5 C	4-4-6	MWC407 Bec Prism Sens 7.5 947 977	fine (cl. thin)
				20/16		Set 9 very centre pol. tr red.	

1 P.N. in frig.

Date Tues Aug 16-17/60 Observer L-McR Julian Day 2437163.5

⊙ 144° 04 32.1 3462.9

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.	Hour Angle Ind
25340	HD. 154528	17 00 9	77 48	I-25	E 103 A0	Soft .008	23.3	20 07	21 05	3	W
25341	MWC 383 HD. 209 292	21 57.2	56 14	"	"	"	23.2	21 14	0 1 41	4	W
25342	HD 218393	23 02 6	+49 45	"	"	"	23.1	01 57	03 43	1	W
25343	n per	2 43.4	58 29	"	"	"	23.1	0405	0413	2	E
	FOCUS TEST		OTB								

Dome Temp.
Focus 15
Dome Temp.

Dome Temp. 70°F
Focus 15.53
Dome Temp. 62°F

Transparency Conditions very good

Bright Aurora

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS		Quality
131W	77 45	0-1	6-7	A0	~~4-4-4~~	Spect Bin on	Sms 7 985 1005	good
107W	56 31	0-1	8.1	B5e	4-4-4	Be Prog.	Sms 8 1007 1067 1069	l. weak
203W	49 58	0-1	6·8	A4e	4-44	Be prog Sets Sem 7	1089	fine
112E	55 45	0-1	3.93	K2IIb	12 ~~7~~/16	H.K. Stds Sets Sem 4 Set 8	1096 1099	good
							centre wyl. tored.	

1 P.H in fr.

	MC	SC	ME	S
Aug 17	-2	-2.2	-4.5	+21m 08.5

Date Wed Thu Aug 17-18/60 Observer (MR) Hy - Cg Julian Day 2437164.5

⊙ 145 02 15.0 34645

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H
~~25 744~~	HD 154528	17 00.9	77 48	I-25	103a-O	.006	25°C	20:24	21:20	3
1013-114	ν Dra	18 33.6 18 35.6	+38 45	scan ↔		.030	4/2°	21:41		
1014-114	16 Cyg A	19 39.2	50 18	"		✓	6/6	22:08		
1015-114	"	(40.6)	" (35)	"			"	22:29		
1016-114	α Lyr	18 35.6	+38 45	"			4/2	22:51		
~~25 745~~	σ Cyg	21 13.5	38°59	I-25	103a-O	.008	25+2	23:39 44	23:45	4
~~25 746~~	HD 210721	22 03.8	+52°49'	"	"	"	25.2	23:53	1:33	1
~~25 747~~	HD 224760	23 48.7	+60 18	"	"	"	25.0	1:44	2:42	2
~~25 748~~	HD 9407	01 37.3	+68 36	"	"	"	25.0	3:01	4:45	3

Dome Temp. 5°.0

Focus 15.57

Dome Temp.

Echo I a) culmination ≈ 21:18½ EDST

b) meridian 23:22 EDST (estimated mag −1, brighter than Vega)

c) meridian 1:27.5 ±1.5m EDST. (20° 10° — altazimuth)

d) meridian 3:34.5 EDST from W. satisfactorily for ESE — Done.

Transparency Conditions ..... fair — good. 7= 82

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
1h 55m W	77° 45	0	6.7	A0	4-4-4	N. Spect Binary	Rem 7 1102 ~~1105~~
	+38° 47		0.04	A0 V	30"	2"/mm, 4A/mm	epp. mtr broken ?? LST 19:09 = 21:41
	+50° 28		6.6	G2 V	"	5240 – 3400	
1h 53 W	+38° 46		0.04	A0 V	"		
00 00	39 14	0	4.28	B9 Ib	4-4-4	MK Std.	2.6 mm 6.2 mm 1.3 mm
0 55W	+53° 08'	0	6.6	A3 Ib	4-4	MK Std.	
1 19 W	+60 39	0-1	6.7	A0 Ia	4-4-4	MK Std.	
1 42 W	+63 45	1	7.21	G6 V	4-4-4	Se HH V	(Further tilt for next drum)

Spectrographic work ruined because slit at 000!

4 P.H. in fog

e) 5:27 (N.W. 40.5 ...)

(5 ... 1)

... first shot.

Date Th-Fri 1960 Aug 18/19 Observer MR - M'R Julian Day 24 37165.5
0145 59 59.5 3466.0

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.	Hour Angle End
25344	HD 154528	17 00.9	77° 48'	I-25	103a O	set .008	27°C	20:22	21:16	1	W +
1017-115	16 Cyg A	19 40.6	+50 25	scan	2X →	.020	6/6	21 52			
1018-115	16 Cyg B	19 35.6	+38 45	"	↔	"	4/2	22 33			
25345	T Cyg	21 13.5	+38 59	I-25	103a O	.008	25.6°C	23:25	23:39	2	E +
1019-115	"	"	"	scan	IR → B	.020	6/2	00:01			
1020-115	V Cyg	21 44.3	+60 57	HR x 2	"	"	6/2	00:35			
25346	HD 221830	23 30.4	+30 27	I 25	103a O	.009	25.9	0102	0242	3	E-W
25347	HD 9407	01 27.3	68 26	I-25	"	.008	25.9	0300	0409	4	W+E
	FOCUS	TEST			OTB						

numbered correctly? 3 objects per?

Dome Temp. 74°F
Focus 15.69 − .09 = 15.60
Dome Temp. * Setting changed to 15.58
70°F

Echo I: ① 20:55 EDST Culm.
② 23:00 " meridian transit
③ 1:06 "
④ 3:11 " culm.
⑤ drifted over 5" pass – clouded.

Transparency Conditions good; low haze

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
11:50 W	+77° 45'	0	6.7	A0	4-4-4	Spec. Bin N Set 5	87: 1153 / 1172 l. weak (scratched)
			6.6	G2V	30"	2"/min; 4A/sec	22:16 = 19:48
			0.0	A0V	"	" "	87: 1177 / 1193 Set 2
0:05 E	+39 15	2-0	4.2E	BGIab	12(ADS)	NKS 5	1193 / 1225 Set 7 fine
			"	"	30"	4900–3700 2"/m; 1A/s	1225 / 1233 Set 8
			4.66	A2Ia	"	4540–4160 " "	
0 04 N	+30 48	1	7.44	G2V	4-4-4	Set 5 Sens 7 SeHV prog.	100% extinction 1246 / 1278 good
0 10 W	+68 46	1+	7.21	G6V	4-44	Set 2 Sens 7 SeHV prog.	" 1279 / 1271 good (l. weak in blue)
					20/16	Set 8.	o.k. but centre shifted laterally.

4 PH in fr.

85

Date Sat Sun 13&14 Aug 20-21 Observer DH— Julian Day 2437167.5

⊙ 147 55 33.1 3469.0

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.
25348	HD 221830	$23^h\ 35^m.4$	$+30°\ 27'$	I-25	103a-O	008	22.5C	22 49	23:49	1
	Focus Test				OTB					
	Focus Test				OTB					

Dome Temp.
Focus 5.5
Dome Temp.
Hour Angle End

Dome Temp. 67°F

Focus 15.52

Dome Temp.

Transparency Conditions Light cloud and haze later

DH Gg KM showed ~160 visitors M13, Echo I

35/- 2kg fills -

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
	+35° 49'	0	7.44	G2V	4.8	Se HV Sd 4 Sen 7 1393 – 1431 counts (companion is double)	too weak
						Plate cloud early, drone / clear	
						10/7 Wrong exposure Sd 9	
						20/16 Sd 1	Iron area under centre to violet.
						3 PH in fig	
						DH, Gg Cloud up – Thick Haze + Fog. – 0:55	

Ding Time B.S.T.

67.5

3469.0

87

Date Mon Tues 22nd 23rd August (1960) Observer MR Sr Julian Day 2437169.5

⊙ 149 51 12.5 3471.9

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.E	Hour Angle End
		19 31.5 (1960)	−07 15			set					
25349	K Aql	19h 34·7	−07°07	I-25	103a-O	008	26°C	21h 26	21h 56	3	(h-1) "
"	ζ Aql	19h 34·6	−01°23	"	"	"	"	21h 59	22h 27	3	00h 28W
		19 31.6	−1 31								

Dome Temp.
Focus 15°
Dome Temp.

Dome Temp. 72 °F

Focus 15.58

Dome Temp.

Transparency Conditions

9=32½ Eastern Summer Time Echo I 5° S of Vega on meridian

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
0h-11m W	—	0	5.04	80 S III	6-6	(MR Prog) Sen 7 1424 1449 1451 Set 2	good
00h42W	-01° 22	1	4.28	85 III	6-6½	Two old ½ to continue " 1479 Set 5	good
						2 PH. loaded	
						MC SC ME S	
				Aug. 23		-2 -4.9 -5.5 +21m04.3	

Date Tues-Wed, Aug 23-24/60 Observer Hr — Gq Julian Day 2437 170.5
⊙ 150 49 04.4 3473.3

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp. 22.5	Starting Time E.S.T.	Ending Time E.S.T.	P.B	Hour Angle Incl
25350	HD 169832	18 21.4	+08 44	I-25	103a-O	.008	22.4	20 15	00:21	1	2h 49m W
25351	HD 210221	22 03.8	+52 49	"	"	"	22.2	00:35	1:09	4	0.5W
25352	w² Aquarii	23 37.5	−15 06	"	"	"	22.2	1:20 :26 :36 :54	1:28 :35 :52 2:05	1	0.5E
						long slit					
25353	β Piscium	0 08.1	+14 38	"	"	.008	22.2	2:19 :25 :32	:21 :29 :36	2	0.5E
25354	HD 223960	23 48.9	+60 18	"	"	"	22.1	2:56	4:36	3	2.5W
	Focus F55								FTB		

Dome Temp. 7
Focus 15.
Dome Temp.

Dome Temp. +66° F

Focus 15.52

Dome Temp.

Transparency Conditions Good.

Echo I Transit at 22h 16m 20s approx.

Echo I — low in SW — 4:31 am EST.

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
3h 49m W	+08 47	0	8.53	G7 V	4-4-	Set Hv (Decided-not going to get) # 9 1502 94	weak
0 55 W	+53° 08'	0	6.6	A3 I b	4-4-4	MK Std. Sens 7 1596 1615	good
	−14 45	0	4.62	[illegible] V	12 12 12	Set 0 − 3 counts, 2 − 6 counts, 4 − 12 counts, 7 − 7 counts. MK Std ⊛ Sens 5 1620-23 24-30 32-44 45-52 guided on blue part of image.	fine ⊛
0 30 E							fine
0 17 E	+15 00	0	2.87	B2 IV	12 12 12	Set 0 − 2 counts, 2 − 4 counts, 5 − 6 counts. guided on blue (next one) long exp. on red extreme, normal exp. "I couldn't make out colour." MK Std	fine weak
2 02 W	+60 39	0-0	6.7	A0 Ia	4-4-	MK Std Sens 7 − 1672 1689	weak
					2016		Focus O.K. (recalibrated)

⊛ Spectra too close together.

1 P.M. +4 in Sq.

MC	Sd	ME	S
−2.5	−4.9	−5.0	+21m 04.8

Aug. 24

Date Aug 24-25 Wed-Thurs Observer MR - M'R Julian Day 2437171.5

⊙ 151 46 57.7 3474.7

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.B
25355	η UMa	13h 43m6	+49° 49′	I 24	103a0	.008	22.0	19 : 45	19 : 58	4
25356	γ Boo	14 22.0	+38 45	"	"	"	"	20 : 17	20 : 39	1
25357	HD175190	18 49.1	-22 48?	"	"	"	"	20 : 52	21 : 32	2
25358	HD199478	20 52.4	+47 02	"	"	"	"	21 : 57	22 : 38	3
25359	14 Cyg	21 58.7	+37 31	"	"	"	"	22 : 46	23 : 21	"
25360	HD221170	23 24.8	+29 53	"	"	"	"	23 : 40	0 30	4
25361	HD 11592	01 48.2	+10 08	"	"	"	"	03 : 22	04 44	"
	FOCUS TEST				OTB					

Dome Temp.
Focus
Dome Temp.

Dome Temp. 62°F
Focus 15.52
Dome Temp. 59° F

Transparency Conditions much high cirrus

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
1:27 W	+49 32	1	1.66	B3 V	10	MR-EW S7: set 2 {1706, 1731} set 5 {1731, 1779} set 8 {1779, 1792}	fine
1:04 W	+38 29	1	3.22	A7 II	10	" S7: set 2 {1792, 1816} set 5 {1816, 1865} set 8 {1865, 1877}	fine
0:35 W	-22 43	1	6.0:	Sg K5	4-4-	Hi V Sp. B. S8: set 5 {1880, 1942}	l. weak
0:20 E	+47 18	1	5.76	B8 Ia	4-4-4	MR-EW S7: set 2 {1956, 1980}	good
0:45 E	+57 50	2+	5.50	C9 V	4-4-4	" S7: set 6 {1974, 2033} set 9 {2034, 2058} set 10½ {2059, 2072}	good
2:38 W	+30 14	2	8.79	G2 IV	4-4-4	Se-HV S9: set 2 {2090, 2130} much haze at orig. clear again at 2LVT.	weak
3:05 W	+10 26	2	7.24	F5 II	4-4-4 20½	Se HV Set 7 set 2 2304 → 2336 Set 5.	good Focus o.k.

4 P.H in fr.

93

Date Aug 25-26/60 Observer (Hv) Hv – Cg Julian Day 2437172.5

0 152 44 52.4 3475.9

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp. 22.2	Starting Time E.S.T.	Ending Time E.S.T.	P.H.	Hour Angle End
25362	Jupiter (N. of North Trop. Belt)			I-75	II-a0 (unfiltered) (spotted quartz)	.008 (long slit)		20:16	20:25	3	
	" (S. of South Trop. Belt)							20:26	20:30		
	Saturn (ball)							20:38	21:04		
	(rings)							21:05	21:27		
25363	HD 190658	20h 00.8	+15 13	"	E1032-0	.016	22.0	2204	2306	2	
25364	" 199216	20 50.7	39 42 (49 09.7)	"	"	.008	21.7	2321	1:51	1	
25365	HD 223960	23 48.9	+60 18	"	"	"	21.9	2:07	4:07	4	
25366	ζ Cas	0 47.2	+62 11	"	"	"	21.8	4:19	4:39	1	
	Focus	-5/16 (3?)	-5/9 (10?)					0?B			

Dome Temp. 67
Focus 15.52
Dome Temp.

Transparency Conditions Clear except for thin haze + a little cloud in south.

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
		0			12	Set 0 | 16 counts	Can make out 3 or 4 radial ish bands across (not really good seeing).	fine
		½			12	Set 4 | 16 counts		good
		½			12	Set 7 | 16 counts	can possibly make out a ring of nebulosity. Mountings hazy.	good
		½			12	Set 10 | 10 counts		weak
1°02'W	+15°24'	0-1	8.0	gM2	2-2-2	∥ 2 vdB - Bin.	#7 2418 2442	weak
2°59'W	+49°35'!	0-1	6.8	B1 II	4-4-4	∥ 2 MK Std.	#7 2446 2470	good
2°15'W		0-1	6.7	A0 Ia	4-4-4	MK Std.	#7 2476 2508	good (quivering)
0h 48' W	+63°30'	1	3.18	B2 IVp	12	MR-EW #4 (guided on nebulosity) | Set 0 2517 2526 | Set 3 2526 2530 | Set 6 2521 2530		fine
					70/16	Set 9	centered to red.	

	MC	SC	ME	S
Aug. 26	-1.7	-5.0	-5.5	+21m C4.3

Date Aug 26-27/60 Observer Hr - Julian Day 2437173.5

⊙ 153 42 48.3 3477.3

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp. 24.5	Starting Time E.S.T.	Ending Time E.S.T.	P.H.
25367	HD 178849	1905.1	3435	I-25	E103a-O	.008	24.6	20 42	22 28	2
	12 Lac							~~23 02~~		
25367F	Focus Plot				O 'B	"				

Dome Temp. +74°

Focus 15.56

Dome Temp.

Transparency Conditions Poor. Extinct

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
1125W	3444	1-2	6·4	B_3V	4·8	Set 2 MK-STD. #7 2580 2604	weak guiding
	CLOUDS. !!!					" " # 2608	
					20/16	" 8 centre sl. to red.	

1 P.H. in Trig.

A VERY POOR NIGHT!

Date Sat, Sun 1960 Aug 27/28 Observer AJR – McR Julian Day 2437174.5

0154 40 45.6 3478.6

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H
1021-116	α Lyr	18 35.6	+38 45	scan	2X	.020	4/2	22:57		
1022-116	16 Cyg A	19 40.6	+50 25	"		"	6/6	23:23		
1023-116	51 Peg	22 55.0	+20 30	"	4X	"	6/5	23:57		

Dome Temp. +68°F

Transparency Conditions good (clds in N now 98 & in W at 0set

Focus

Dome Temp.

200 visitors
showed M13 + Echo I (MR + McR + P_2^2 + R + SC

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
			0.04	A0 V	30"	2"/min 4A/sec 5240 to 3400 EST 22:42 = 20:57 EST	
			6.6	G2 V	"	" " " " Guidance fr ± 5% bc in Cam tracking	
	(900 V)		5.59	G4 V	"	" " " " HD217014	

clouding up fast 0100
closed up

1 P/H in f.

Date Aug. 29/30 Mon. Observer MR - McR Julian Day 2437176.5

⊙ 156 36 44.1 3481.2

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.E
1024-117	α Lyr	18 35.6	+38 45	→		var	var	23:23		
1025-117	16 Cyg A	19 40.6	+50 25	scan 2×		set 020	6/6	00:21		
1026-117	51 Peg	22 55.0	+20 30	"		"	6/5	00:43		
1027-117	ζ Peg	22 39.5	+10 37	→		var	var	01:04		
25368	"	"	"	I-25	103aO	.008	22.4	01:24	01:49	4
1028-117	BD +61° 412	2 19.6	+61 44	→		350	6/7	02:25		
25369	HD 16757	2 55.7	+61 21	I-25	103aO	.008	22.4	03:05	0322	1
	Focus Test		0 ? B							

Dome Temp. 65°F

Focus 15:55

Dome Temp. 64°F

Transparency Conditions clear after 2300 strong aurora

100

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS (4A/5; 2"/m)	Quality
			0.04	A0 V	30"	1) slit 20 4/2 2) slit 7 4/6 3) slit 20 4) slit 57 3/5	
			6.6	G2 V	"	5240 — 3400	
			5.6	G4 V	"	"	
			3.40	B8 V	"	1) slit 20 5/4 2) slit 7 5/7	
:25W	+10 38	1	3.61	B8 V	12	MR-EW Prog. Seq 4	fair
			4.27	B3	30"	scan star 5240 — 4500; Shy at c4912 on both sides	
:18E	+61 35	0	7.22	G4 V	4-	Se HV Prog Seq 7 Set 5	two weak nebs

optics work; restart slit 20

900 V

S 3	2750-H$_2$
S 5	2753-6
S 7.5	2757-63

2767-8

Clouds! 03:20 closed up.

19/16 Set 2.

Focus good

3 PH. in fr

H/δ = 4340
I/T = 4340
δ = 4116

Date 1960 Aug 30/31 Tues/Wed Observer MR - McR Julian Day 2437177.5

⊙ 157 34 45.3 3482.5

Plate No.	Object	R.A. 1900 h m	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.E
1029-118	γ Oph	17 45.8	+02° 43′	H8×2		020	5/6	20:37		
1030-118	K Aql	19 34.7	-07 07	H8×4		"	6/3	20:53		
1031-118	L Aql	19 34.6	-01 23	4B×2		"	5/6	21:24		
1032-118	γ Lyr	18 57.4	+32 38	"		"	5/4	21:42		
1033-118	δ Cyg	19 43.7	+45 02	"		"	5/3	22:00		
1034-118	HD 209761	22 04.3	+48 02	"		"	6/5	22:17		
1035-118	HD 214240	22 34.2	+49 52	"		"	6/5	22:34		
1036-118	HD 213420	22 28.8	+42 55	"		"	5/6	22:51		
1037-118	HD 216200	22 48.6	+41 45	"		"	6/5	23:07		
1038-118	HD 216916	22 54.6	+41 23	"		"	6/3	23:23		
1039-118	HD 212978	22 25.7	+39 36	"		"	6/4	23:40		
1040-118	HD 214167	22 34.1	+39 25	"		"	6/5	23:57		
1041-118	HD 214168	22 34.1	+39 25	"		"	6/4	00:11		
1042-118	HD 217101	22 55.8	+39 06	"		"	6/5	00:29		
1043-118	HD 217643	22 57.6	+58 50	"		"	6/5	00:57		
1044-118	HD 213983	22 31.0	+47 14	"		"	6/5	01 22		

Dome Temp. 68°

Transparency Conditions clear

Focus .....

Dome Temp. .....

Echo I 21:46:15 Limit EST

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Make some experiments on location of stars	REMARKS	900V	List	Quality
	+2°44′		3.76	A0 V	30″	2″/min; 1A/Sec	N 4200–4500		D	
			5.04	B0.5 III	"	" "			D	
			4.28	B5 III	"				D	
			3.30	B9 III	"				D	
			2.97	B9½ III	"				D	
			6.21	B2 V	"				J	
			6.24	B3 V	"				J	
			4.42	B2 IV	"	6 Lac			J	
			5.99	B3 V	"	14 Lac			J	
			5.44	B2 IV	"	16 Lac			J	
			6.00	B2 V	"				J	
			6.31	B2 V	"	8 Lac			J	
			5.48	B1 V ne	"				J	
			6.02	B2 IV-V	"				J	
			6.43	B3	"				J	
			6.32	B2 II	"				J	

(cont over)

Date Aug 30/31 cont Tues/Wed Observer MR M°R Julian Day 2437177.5

⊙ 157 34 45.3 .3482-5

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P
1045-118	HD 215791	22 41.1	+37 36	H8X2		.020	6/5-	01:40		
1046-118	HD 217811	23 00.9	+43 51	"		"	6/5-	01:59		
1047-118	ADS 36A	00 02.7	+58 18	"		"	6/6	02:20		
25370	HD 18757	2 55.7	+61 21	I-25	103a-O	.008	21.0	03:00	04:50	2
	FOCUS TEST		OTB							

Dome Temp. 68° F

Focus 15.52

Dome Temp. 64° F

Transparency Conditions clear

Ending Time E.S.T.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
				6.34	B1 II	30"	2"/min 1A/cm 4200-4500 list	J
				6.38	B2 II	"		J
				6.5	B3	"		C
4.10	0 010W	+61 35	1-2	7.22	GA II	4-4 20/16	Se HV Prog Sens 7 Set 2 Set 5 2775 2505	2 good
							Focus o.k.	
							2 PH in pr.	

	MC	SC	ME	S
Sept. 1	-1.5	-6.0	0.0	+21m02.1

MIRROR HEAT ON.

Aug 31-Sept 1/60

ECHO I Passage Aug 31/60
W → E Slightly N. of Zenith
Transit 19h 19m EST (8:19 PM EST)
Sky deteriorating rapidly after this Hr.

Date Sept. 1/2 (Thurs/Fri) Observer - PL Julian Day 2437 179.5

⊙ 159 30 51.7 3485.4

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.	Hour Angle End
							27°				
25371	K Cas	00 27.3	+62 23	I-25	103a-0	.008	24.2°C	0118		2	
	K Cas	"	"	"	"	"	24.1°C			"	
	K Cas						24.0°C		0149	"	0°E
25372	HD 6343 MWC 10	00 59.4	+65 26	"	"	"	24.1°C	0208	0426	4	1°50'W
25373	δ Cet	02 34.4	-00 06	"	"	"	23.8°C	0442		1	
	δ Cet	"	"	"	"	"	—		0505		0°24
	FOCUS TEST				OTB						

Dome Temp.
Focus
Dome Temp.

Dome Temp. 69° F
Focus 15.55
Dome Temp. 61° F

15.64
.09
55

Transparency Conditions Clear (2nd half) 206

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.		REMARKS	Quality
						set clocks after pairs set	Sept. 1 A.M.	
	+62 44	0	4.24	B1 Ia		set 2	2858 - 2861	fair, weak
					4-4-X	set 5	NE-SW 2862 - 2867	good (guiding)
					4-4-4	set 8	2868 - 2878	good
1h 14m E								
4h 50m W	+65 47	0	7.1	B5 eb	4-4-4	set 5	2879 - 2904	l. weak
	+00 11	0-1	4.04	B2 IV		set 3	2908 - 2911	fine
5h 56m W					4-4-4	set 5	2911 - 2916 (Sky Entirely hazy)	fine
					20/16	set 8		Focus o.k.

5 pairs in Fog

	MC	EC	NE	S
Sept. 2	-1.6	-6.3	-0.5	+21m 01.9

Date Sept 2/3 Fri-Sat 1960 Observer Hy - Hr Julian Day 2437180.5

⊙160 28 57.1 3486.8

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.I
25374	29 Cyg	20h 12.7	+36° 39	I-25	103aO	.008	22.7°c	19:55	20:11	2
25375	α Lyr	18 33.6	+38 41	"	IIaO	"	22.7°c	21:06	21:08	1
	was only Spotted once unfortunately.									
25376	187691	19 46.2	+10° 10	"	103aO	.008	22.6°c	21:35	22:20	3
	"	"	"	"	"	.016		22:20	22:50	"
25377	6 Lac (HD213420)	22 28.8 (1960)	+42 55	"	"	.008	22.4°c	22:58	23:10	4
	"	"	"	"	"	"	"	23:10	23:17	"
25378	214167	22 34.1 (1960)	+39 25	"	"	"	22°.4c	23:20	00 32	1
25379	214168	" (1960)	"	"	"	"	21.7	00 34	0210	2
25380	HD 12953	02 01.7	57 51	"	"	"	21.9	02 39	03.13	3
	2 PH in Neb. H. in M°.									

Dome Temp. 69° F.
Focus 15.60
Dome Temp.

Transparency Conditions

(Homogeneous Arc Starting 6½° in N. yellow green. 20:10 EST)

15.69
.09
15.60

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
1h 30m	36 43	1	5.0		4-4-4	Se-AF set 5 sens 5 2918 2926	guiding
106 W	38 47	1	40.5	AoV		~~2 sec~~ ~~5 sec~~, ~~10 sec~~, ~~min~~	
						set 2 → 3 sec. NOTHING TO OBSERVE!!	good
					4-4-4	set 5 → 5 sec	strong
						set 8 → 10 sec 2991	fine
1h 02m	+10° 19	1	5.8	Fe	4-4-4	set 3 sens 6 STD VEL 2983 2991	good
1h 32 W	"	1	"	"	error	set 7 sens 6 STD VEL 2992 3000 SOME CLOUD: no aurora	good (no comp)
	42057'	1	4.42	B2W	4-4-4	set 5 sens 4 3002 MR LIST J	weak
0h 45m	"	1	"	"	4-4-4	set 8 " ½ exposure 3008	o.k. but guiding
031 W	39° 25'	00	6.31	B2W	4-4-4	set 3 sens 6 3014 MR List J 3022	v. weak
2 17 W	"	00	5.48	B1/2 ne	4-4-4	" 5 # 6 3024 3032 MR LIST J	good (guiding)
10/6 W	5 - 15	0	6.0	A1 Ia	4-4-4	" 5 # 6 3037 0344 MK STD	guiding
					20/16	" 7	Focus o.k.

Phone call said red object brighter than echo. I went SE to NW at 21:05 at about 2x echo's speed. 10:12 EDT

Date Sept 3/4 Sat / Sun Observer PL- Julian Day 2437181.5

⊙ 161 27 03.9 3488.5

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.E	Hour Angle End
~~25381~~											

Dome Temp.
Focus 15
Dome Temp.

Dome Temp. 68°F
Focus 15·50
Dome Temp.

Transparency Conditions

110

1960 Sep. 4-5 Sat. Cloudy Abaut 165 visitors
Gave 2 illustrated talks and 2 demonstrations
of telescope.
N, Pt, JB

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
						Echo I disappeared in Earth's shadow @ 10:23 EST (See sec. past transit)	
						Cloudy until mid.	
						2 p.h. in fog.	

Date Sun-Mon. / Sept 4-5/60 Observer Hr – Hy Julian Day 2437182.5

⊙162 25 12.4 3490.1

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp. 25.4	Starting Time E.S.T.	Ending Time E.S.T.	P.H	Hour Angle Exp
25381	HD193183	20 13.8	37 55	I-25	E103a-O	008	23.3	21 32	00 :24	4	
25382	HD 210809	22 07.9	51 56	"	"	"	23.3	01:00	03:18	1	
25382F	Focus test OT B										

Dome Temp. +68°F

Transparency Conditions Clear - aft. 3 cnt. 112

Focus 15.53

21.45 Brilliant Aurora in N. Mostly Greenish? Streamers Some in Zenith

Dome Temp.

Echo I 21h59 Centre of Passage. Disappeared into shadow? 2201 EST

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
2h 46m	38 08	0	7.12	B1.5Ib	4-4-4	Set 5 Mk Std. #7 3061 3084	l. weak
3h 46m	52° 16	0	7.5	O9Ib	4-4-4	Set 5 Mk Std #8 3086 3012 ~~3 Doubts~~	weak
						(fuse blew)	centre sl. to blue.
						clouded out.	
						1ph in flight	

23:84
21:32
2.52
÷ 2h
4h

Date Mon/Tue Sep 5/6 1960 Observer MR- Julian Day 2437183.5

0 163 23 22.5 3491.9

Plate No.	Object	R.A. 1900 h m	Declination 1900 ° ′	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.E	Hour Angle Etc
~~1048-49~~	ζ Dra	17 08.7	+65 46	11 x 2		.020	5/3	19:57			

Dome Temp.... .....

Transparency Conditions .....

Focus.....

Dome Temp.... .....

ling Time E.S.T.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
		+65° 48'		3.08	B6 II	30"	1A/S; 2"/m; clouded out ~~4200 - 4500~~ Lot 13	

Date Tues/Wed Sept 6-7/60 Observer M·R-H·S Julian Day 2437184.5

⊙ 164 21 34.4 3493.8

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H
25383	HD 184467	19 29.5	+58 24	I-25	103 aO	.008	24.6	19:45	22.05	3
25384	29 Cyg	20 12.7	+36 39	"	"	"	24.4	22:13	22:31	4
25385	HD 221914	23 31.0	+17 53	"	"	"	24.5	22:50	04:40	1

Dome Temp. 68°

Focus 15.676

Dome Temp.

Transparency Conditions clear.

E-I culmination 9:14 EST

11 entered earth's shadow 11:16 EST
alt 30° in west.

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS				Quality
2 W	+58 31	O	7.5	K5	4-4-4	Std Vel	Set 5	Seq 7	3118 3142	sl. weak
10 5	+36 42	0-1	5.0		4-4-4	Sc AF	Set 5	Seq 5	3144 3153	good
	+18 13	0-1	8.33	G5 II	4-4-4	Sc HU	Set 4	Seq 8	3156 3208	weak
					20/16		" 7			centre v. sl. to red

2 Rd in fog
Heat on Mirror

0330 Dripping Outside, Ground Mist.
0410 Clear Sky Visible on S and
0440 Fog !!

	MC	SC	ME	S
Sept. 7	-1.3	-8.1	0.0	+21 m 02.1

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Ki = Paul Kingston.

Date Wed Sept 7-8/60 Observer Hd Ki - M'R Julian Day 2437185.5

⊙ 165 19 48.2 3495.8

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.E
25386	HD 186102	19 31.8	+15 02	I-25	E103aO	008	27.9	20 02	23 06	2
25387	HD 212942 MWC 407	22 22.8	+4 12	"	"	"	28.0	23 12	23 44	3
25388	HD 234579 MWC 11	23 53.8	+45 52	"	"	"	28.0	0012	0126	4
25389	HD 9105	01 24.4	162 31	"	"	"	27.9	0136	0438	1
	FOCUS TEST				OTB					

Dome Temp. 78°

Focus 15.61

Dome Temp. 70°

Transparency Conditions poor – hazy
Very poor night

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS			Quality
						Set 2			
N 2 16	15.10	2.	8.0	B5	4-4-4	Radcliffe B5 prog	zero 8	3221 *	too weak
N 10m	+4 30	1	5.9	ko	4-4-4	Std Vel.	zero 6	3271 (first time)	(1 weak in blue) good
N 21m	+46 14	1	6.5	B3	4-4-4	Be Prog Set 5.	Zero 6	3305 * * [reset 3315]	good
N 2m	+63 09	0-1	7.5	cB5e	4-4-4	Be Prog Set 5	Zero 7	3316 3335	weak guiding
					20/16	Set 9		centre very sl. to red.	

2 P.N. in ½.

Answered after 1st zero accidentally left at 4

* Count was 3271 at 22.40. Then meter went crazy counting sporadically for no reason (counted 43287 in 5 min).

** Quit counting altogether at 3293 for a while (no clouds, just quit)

Date Thurs/Fri 1960 Sept 8/9 Observer NLR Julian Day 2437186.5

⊙ 166 18 04.0 3497.7

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.I.
25390	39 Dra	18h 22m.5	+58 45	I.25'	103a0	.005	28.0	20:42	21:12	3
	"	"	"	"	"	"	"	21:12	21:27	"
25391	57 Cyg	20 49.7	+44 01	"	"	"	"	21:41	21:56	"
	"	"	"	"	"	"	"	21:58	22:04	"
25392	59 Cyg	20 56.4	+47 08	"	"	"	"	22:10	22:24	2
	"	"	"	"	"	"	"	22:25	22:36	"
25393	(*) 2 Cyg	21 13.8	+34 29	"	"	"	"	22:40	22:51	"
	"	"	"	"	"	"	"	22:52	22:58	"
25394	4 Lac	22 20.4	+48 58	"	"	"	"	23:04	23:19	3
	"	"	"	"	"	"	"	23:21	23:49	"
	"	"	"	"	"	"	"	23:58	00:06	"
25395	10 Lac	22 34.8	+38 32	"	"	"	28.0	00:13	00:27	"
	"	"	"	"	"	"	"	00:27	00:36	"

(*) spectra shows excellent Hβ, Hδ dbl + Hε emission lines.

Dome Temp.
Focus
Dome Temp.

Sept. 9

Dome Temp. 20°F

Focus 15.61

Dome Temp.

Transparency Conditions very very hazy

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Coord		Quality
1:45 W	+58° 48′	0	4.65	A IV	6-6	Set 0 MR-EW	S7	3430 3460 30	good
—	"	"	"	"	—	Set 3 "	S7	3460 3475 15	
:00	+44 16	1	4.7	B5	6-6	Set 6 "	S6	3479 3489 10	good guiding
—	"	"	"	"	—	Set 9 " ϟ	S6	3490 3495 5	
:21 W	+47 24	1	4.9	B IV:e	6-6	Set 1 " CAUTION	S6	3495 3508 10	good
—	"	"	"	"	—	Set 4 " Always ground	S6	3509 3514 5	
:31 W	+34 46	1	4.4	B3neb	6-6	Set 7 " Central obs to	S6	3516 3526 10	fine
—	"	"	"	"	—	Set 10 " telescope	S6	3527 3530 5	
:1 E	+49 18	1+	4.64	B9neb	6-6	Set 1 " ϟ	S6	3535 3546 11	fine
—	"	"	"	"	—	Set 4 "	S6	3547 3567 20	
—	"	"	"	"	—	Set 5 "	S6	3567 3572 5	
—	+37 52	2	4.67	O9 V	—	Set 6 "	S6	3578 3592 10	good
:54 W	"	"	"	"	6-6	Set 9½ "	S6	3594 3599 5	

No Focus Test

Sept. 9 MC −1.5 DC −8.5 ME +2.4 S +21m00.7 very very very hazy went home

BPH in F

Date Fri/Sat 1960 Sep 9/10 Observer Br – Hr Julian Day 2437187.5
⊙ 167 16 21.7 3499.8

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.
25396	1 Vul	$19^h 11^m.9$	$+21° 13'$	I 25	103a O	.008	24.1	21:30	22.23	4
—	—	"	"	"	"	"	"	22:23	22:50	"
25397	ADS 16472 A	$22^h 58^m.2$	$+43° 34'$	"	"	"	"	22:59	23:50	"
—	—	—	—	—	—	—	—	—	→	"
	Focus Test	OTB	↑ 31′					←		

Dome Temp.
Focus 15.5
Dome Temp.

Hour Angle End

Dome Temp. 67° F

Focus 15.55

Dome Temp.

Transparency Conditions Poor – Hazy and Patchy, & Cloud till 21:15

Echo 1 11:10 EDT – into ⊕ shadow

* 9.50 – fireworks display due south.

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS		Quality
$0^h 08^m W$	$+21° 19'$	O⁻	4.6	B5 n	—	Set O. MREW	Seus: 7 {3607 3631 24	good
$-^h 35^m W$	"	O	"	"	4-4-4	Set 3 "	" {3631 3643 12	l. weak
$0^h 13^m E$	$+43° 53'$	O	6.4	B2 V	-12-	Set 6 " only 9 counts"	{3644 ~~3668~~	weak (guiding)
					20/16	Set 9	Focus o.k.	

Clouded out at 23:50 Solid Bank –

shaft night Sep 10 ≠ 170 visitors.
Hd, Gg, S.I., Dennis Chatel
through channel "Exploring
the Universe"
— Cloudy —

New batteries for flashlight! They're on 7th life

Date Sulmo Sept 11/12 1960 Observer vdB-Hr Julian Day 2437189.5

O 169 13 03.4 3504.0

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.I.
25398	HD190658	20h00.8	+15°13'	25"	103a-O	.016	20°C	19h40m	20h30m	1
25399	HD 219113	23h08.3	+20°8'	25"	103a-O	.008	20°C	20h47m	0221	1
25400	HD 18337	02 51.7	59 11	"	"	"		0241	0318	4
1.0	Thor-7-I		07B	"	"	"				

Dome Temp.
Focus 5.49
Dome Temp.

Hour Angle End

Dome Temp.... 68

Focus 15.49 mm

Dome Temp.....

Transparency Conditions Fair, Fine & Sw 2000

189.5

3504.0

ding Time E.S.T.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
0h30m	30m E	+15°23'	0-1	8 0	gM2	2+2+2	vdB SB: 656 to 7.	weak (guiding)
22	2°13m W 2.5 W	+2°28'	Lower 0 0-1	8.7	G5 G5	3+4+4	S2 Psc #8 7240 to 792	weak
1?	035E		0-1	7.65	A0	4-8	KA6X6 #3795 3805 0310 Clouds from SE	weak
						20/16	Sat 9 centre v. sl. to sod.	

IP. H. Franklin Parry, Hon M.

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Date Jun-Jul 1960 Sept 12/13 Observer MR - Ki Julian Day 2437190.5

⊙ 170 11 27.4 3506.2

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit Set.	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.
25401	α Lyr.	18h 33.5	38° 41'	I 25	IIa-O	.008	+20°c	19h 55m	20h 07m	4
"	"	"	"	"	"	"	"	20h 07m	20h 23m	4
"	"	"	"	"	"	"	"	20h 23m	20h 26m	4
25402	α Cyg	20h 38.0	44° 55'	"	"	"	"	20h 41m	21h 02m	4
"	"	"	"	"	"	"	+19.0	23h 25m	23h 54m	4
"	"	"	"	"	"	"	19.0	23h 58m	0h 06m	4
							(no heat)			

6"

Dome Temp. 65°F
Focus 15.49
Dome Temp.

Transparency Conditions mostly thyfl clouds

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS			Quality
—	38° 47′	→	0.00	A0 V	...	MR-EW set 0	neb: only 1/8	S6 {3855 3890} 35	l. strong
—	"	"	"	"	...	" set 1	1 mirror	" {3890 3905} 18	fine
1h 01m W	"	"	"	"	6–6	" set 4	uncovered	" {3908 3917} 9	fine
0h 28m E	45° 11′		1.17	A2 Ia	6–6	" set 7.	1/4 uncovered.	S6 {3923 3645} 22 (dbl.)	l. strong
—	"		"	"	— —	" set 10	" "	S6 {3945 3980} 35	fine
2h 39m W	"		"	"	— —	" set 9	" "	S6 {3950 3988} ?	strong

cloudy still

This plate spotted-few times

Note: Near Antipode.

Date Tues: Wed Sept 13/14/16 Observer — McR Julian Day 2437191.5

⊙ 17/ 09 53.6 3508.2

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.I	Hour Angle
25403	HD 21389 FOCUS	3 21.9	59 32	1.25	103 ao OFB	.009	13.8	4 16	05 02	2	1.5

Dome Temp. 4
Focus 15
Dome Temp. 4

Sept. 16

Dome Temp. 48°

Focus 15:46

Dome Temp. 47°

Transparency Conditions clear after 4:15 approx

128

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
5 2W	58 45	0	4:7	A0Ia	4-4-4 20/16	MR-EW Set 2 Sens 5 3991/4000 Set 6. centre for blue	good

	MC	SC	ME	S	
Sept. 16	-1.3	-10.4	+1	+20m	59.8

2 P.H. in fr.

NEW FLASH. BATTS.

ON 10TH LITE

Date Fri : Sat 16/17/60 Observer Hd Ki — Hr Julian Day 2437194.5

⊙ 174 05 24.7 3514.7

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.
			Focus Test							
~~25403F~~	~~HD 4454~~	~~+6° 04'~~	17 51	I-25	103aO	0.016	17.6			3
25404	19 Cep	22h 02.1m	61° 48'	I-25	103aO	0.008	17.6	28h 54m	29h 29m	4
"	"	"	"	"	"	"	"	29h 29m	29h 59m	4
"	"	"	"	"	"	"	"	29h 59m	22h 06m	4
25405	HD 72	00 00.5	43 55	I-25	103aO	0.016	17.5	22h 40m	0404	1
	(from)	J 0713				003				

ome Temp. 59° F
ocus 15·45
ome Temp.

Transparency Conditions

Thin cloud + Haze after 0140

ding Time E.S.T.	our Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS				Quality
	FB. Focus test		0	7.56	Ao	3- 20/16	K.A	Set 2	thick cloud hopeless	SP {4003 4011	c alt r
h29m	1h 07m E	+62° 07	0	5.17	Ao.5 I.	4-4-4	MREN	Set. 2		SS {4021 4030 9.	
59m	0h 37m E	"	"	"	"	—	"	Set 5		" {4030 4048 18	fair.
06m	0h 31m E	"	1	"	"	—	"	Set 8.		" {4045 4053 5	
	0 2 W	+44° 16'	1	8·0	Ao	2-2-2	KA 6x6	Set 2		{4054 4117 63	l weak
						20/16		" 9			

3 P. H. in Trig;
H. on M.

A Poor Night after Midnight.

	MC	SC	ME	S
Sept. 19	0.0	-12.1	-1	+20m 59.0

131

Date Tu/We 20/21 Sept 1960 Observer vdB Julian Day 2437198.5

@ 177 59 55.5 3522.8

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	PJ
2540	HD 190658	20h00.8	+15°13'	75"	103aO	008	10°c	19h17m	21h59m	2
	Focus 1675									

Dome Temp. 64°F

Focus 1549

Dome Temp. ...

Transparency Conditions Haze
cloudy over 20°20' - 20°40
22'00 cloud out

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
4h37m W	15°26'	O+	8.0	gM2	6+6+6	vdB 5B. 4119 -21	good
						2PH in Fridge	

Date Wed/Thurs. 21/22 Sept 1960 Observer Ki – Hr Julian Day 2437199.5

⊙ 178 58 38.3 3524.6

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H
25407	HD 190658 focus test. OTB	20h 00.8	+15 13	I-25	E 103a-O	0.008	18.2°C	21h 13m	0015	4
							Focus			
25407 F1	Focus Check			Sets	0		13.10			E+P 10/E
					2½		13.00			
					5		12.90			
					7½		12.80			
					10		12.70			
										P/P 10/
25407 F2	focus check			sets.	0		12.70			
					2½		.68	(best)		
					5		.66			
					7½		.64			
					10		.62			

Dome Temp. 63°F
Focus 15.46
Dome Temp.

Transparency Conditions Clear after 21 hrs. Fog started at 22h 30
Low in Sun & Head.

134

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
359W	+15° 24'	O-	8.0	gM2	6-6- 20/16	vdB SB. Set 2 11 5 S 8 {4232 4264	l wk

P. H. in Fog.

This represents the installation of the I-12 camera after it had been re-cemented by Canadian Arsenals. Tests had shown that the strains in the lens due to cement giving way had resulted in a very bad figure. We attribute the poor quality of earlier tests & this deterioration. Notice the great improvement of definition now. JFL.

VERY THICK FOG!!

L Changed to 12½ Camera
Focus -15.46
25" Was Silt 23.15

12½ins Focus 12.68
Silt. 20.35

	M.C	S.C	ME	S
Sept. 23	+1.2	-13.9	0.0	+20m56.4

set at 12.68 Sept 23/1960. P.W. Kingston.

135

Date Oct Sept = 4-25/60 Observer Hd - L Julian Day 2437202.5

⊙ 181 54 57.6 3530.1

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.
25408	HD 212943	22 22.8	+4 12	I-12	E103a0	208	21.6	21 42	21 54	3
								21 57	22 04	
								22 05	22 09	
25409	HD 72	00 00.5	+03 55	"	"	"	21.6	22 27	00 05	1
25410	" 99	00 00.8	~~46~~ 11	"	"	"	21.6	00 18	02 12	4
			44 11							

Dome Temp. 66°F — Transparency Conditions Very poor — Large

Focus 12.68 — Moved to 12.69

Dome Temp. [illegible] VS-4 CN JR

136

P = 3 × 4 [illegible] found

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
			5.9	K0	2-4	2 × 2 : Std Vil. Lens 6	4273 4277½
					3-3	" 5 " " " 6	4278 4281
E 19m	+42 26	1			3-3	" 3 " " 6	4281 4304
000	44 17	1	8.0	A0	22-2	" 2 KA 6×6 Lens 8	4304 4307
2 07W	44 34	1-0	7.94	A3	22-2	" 5 KA 6×6 8	4307 4327

Seeing deteriorating
More haze

3 PHs loaded
+8 in box

Sept. 28

MC	ΔC	ME	S	
+2.5	-15.3	-1	+20m	53.9

Found [illegible] on exp meter

137

Geir P Tuttle Ann Tottan
Kimra H Swaner

Date Wed. Sept 26/79 **Observer** vdB – H.v **Julian Day** 2437206.5

⊙ 185 50 28.1 3536.9

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H	Hour Angle End
25411	HD 18 7191	19 4.2	+10 10	I-2	E103a0	.038	21.1	19 45	19 52	1	
		20h 15.6 (960)	+46 00 (960)					19 55	19 58	1	
25412	HD 193536	20 15.5	+46 11	"	"	"	"	20 36	20 51	2	
		21h 21.7m	36° 14'					20 51	21 01	2	SW
	HD 204172										
	"										
25414	HD 213014	22h 23.4m	+16° 46'	"	"	"	21°C	22h 03m	23h 18m	1	
25415	BD+62° 2216	23h 14.3	+62° 57'	"	"	"	21°C	23h 58	0232	2	
25416	HD 37171	5 31.5	+10 58	"	"	"	21°C	0300	0316	3	
25417	" 20873P	0316.8	2727	"	"	"	21°	0335	0515	4	
	Hour Ang.		0715								

ome Temp. 65°F Transparency Conditions Fair

ocus.....

ome Temp..... Clouds during last ex.

ing Time E.S.T.	our Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
SL		10°20	0	5.8	F8	6	Set 1 Std. Vel. Prg. (white) zens 6	fair
"						6	" " " "	good
51		46°14	0	6.3	B2	6	Set 5 M.R - FW "	fair
31	0h 57W					6	Set 8 " " (Brown) "	fair
24	0 [illegible]	36°30	0	5.8	B0 Ib	6	Set 2 M.R. FW (Yellow)	fair
1'	21°05W	+17°05'	0-1	8.5	G8	2+2+2	Standard Vel Star 4365-85	good
232	0330W	+63°17'	0	9.1	B9Ia	2+2-2	III Cephei OB #9 4387 - 4458	weak
230	0204E	+11 01	2-3	7.59	K5III	3-3-3	Set 2 HV spect. B.. VdB. #7 4463 4471	weak (8 comes)
215	0 10W	29 43	0-1	7.9	A2	3-4	" " KA6X6 #8 4478 4485	good
						10/8	" 9	
							18+H+3 in frig.	

	MC	SC	ME	S
Sept. 30	+2.7	-16.5	-0.8	+20m 52.6

RASC Visit Sept 30 250 visitors - cloudy

Date Sat/Sun Oct 1/2 1960 Observer Br} - Julian Day 2437209.5
In}
⊙ 188 47 24.1 3542.2

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.I
25418	HD 212943	22h 22m.8	+04 12	I-12	103a-0	.008	13°C	21:58	22:20.5	1
25419	HD 214240	22 31.8	49 33	"	"	.008	13°C	22:35	23:20	2
	Focus Test	OTB.								

Dome Temp. 48°F

Transparency Conditions Clear - some cloud by midnight in NW.

Focus

Dome Temp.

140

ding Time E.S.T.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
2:20.5	0h 21min W	+04 32	0.	5.9	K0.	2-2-2	Set 5 Std vel. - Sens 7 - 4487 / 4495 *	? too wet
3:20		+49 53	0	6.2	B3V	2-2-2	Set 3 MR-EW Sens 8 - 4499 / 4515 } 16	good.
					11/8	"	Set 7 only 16 of 20 obtained	

Clouded out at 23:20

2 PH in fog + 4 in bot.

Date Sept/Nov 1912/3 Observer W - H ✓ Julian Day 2437210.5

⊙ 189° 46' 26.3 3544.2

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.F
25420	HD 5071	00 47.5	60 8	I-2	102.0	0.05	18°	22:05	23 56	3
25421	HD 5573	00 50.5	46 07	"	"	"	+14°	00 22	01 34	4
25422	" 18337	02 51.7	59 11	"	"	"	13.9	01 45	03 17	"
	7 cent	) cent								

Dome Temp. 52°F

Transparency Conditions Passing Clouds.

Focus

Dome Temp.

Reading Time E.S.T.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
	26E	60:28		7.9	A_{2+}	2-2-2	KA 86 Seq 8: 4570	good
	11W	46 27	0-1	7.9	F_2	2-4	" " field clouds. #8 4546 45.69 Set 2	fair
3.7	051W	59 27	0	7.85	A_0	2-2-2	" " " #8 4572 " 3	good
						11/8	Clouds. " 5	
							2 P.H. Loaded IN DOME	
							Plates Needed	
				MC	SC	ME	S	
			Oct. 3	+3.8	-18.5	+1	+20m 52.2	

143

Date Mon/Tues 3/4 Oct 1960. Observer Ki - H ✓ Julian Day 2437211.5

⊙ 190 45 30.5 3546.1

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	
25423	HD 212943	22 22.8	04 12	12½	E103a-O	.008	14.2°c	20h 31m	21h 01m	
"	"	"	"	"	"	"	"	21h 02m	21h 43m	
~~25424~~	~~HD 212844~~	~~22 23.4~~	~~46 56~~	"	"	~~.008~~	"	~~21h 54m~~		
25424	HD 212883	22 22.4	+36 57	"	"	"	"	23h 02m	0h 02	
25425	HD 5344	00 50.2	46 21	"	"	"	14.0	00 14	02 12	
	{ Same Dat		07.8							

Dome Temp. 54° F
Focus Fixed.
Dome Temp.

Transparency Conditions
From 21h30m - light clouds (cirrus?) Ic

Ending Time E.S.T.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
h m	01h10m E	+04° 32'	0	5.9	K0	2-2-2	Std Vel. Set 1 Seq 6 {4606 4620 (12)	
h 43m	10h08m W	"	0	"	"	2-2-2	" " Set 5 " 6 {4621 4633 (12)	
~~h m~~	~~+14° 05'~~		~~8.5~~	~~G8~~	~~2-~~	~~2 2 2 Set 8~~	~~{4646 4654 (12)~~	
h 04	02 13W	+37° 17m	0	6.2	B_2	2-	B-type Std Vel. set 1 : Seq 6 {4646 4654 (12)	
02	1 52W	46 43	0	7.8	A_0	2-2-2	Set 2 KA. 6x6. 8 4657 4677	
						"/8	" 8 Clouds.	

2 P.H. +4? in D.E.
H on M.

Tues Oct 4/60 Hd + L. Chromium coat removed from Cass, but it is still stained. Aluminized by Vacuum metallizing? Stains show as mottiness.

145

Date Tuesday 4/5 Oct 1960 Observer — Ki Julian Day 2437212.5

⊙ 191 44 36.6 3548.3

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	H.L.
25426	HD 9138	01 24.9	+05 38	12½	103a-O	008	13.2°C	00h 24m	00h 33	
25427	HD 8779	01 21.4	−00 55	"	"	"	"	00h 40m	01 26	
25428	HD 13854	02 09.9	+56 36	"	"	"	"	01h 40m	1h 54m	
25429	HD 13841	02 09.8	+56 34	"	"	"	13.0	02h 20	02 39	
	Focus Test		07 B.							
25430	HD 20873 f	03 16.8	+29 27	"	"	"	13.0	03 00	04h 08.5m	
25431	HD 27532	04 15.7	+29 25	"	"	"	13.0	04 17	4h 20	
	Focus Test.		07 B.							

Dome Temp. 48° F (24hrs)
Focus FIXED
Dome Temp. 46° F

Transparency Conditions light intermittent clouds clear by 02 hrs.

146

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS				Quality
0 17 E	+05° 58′	0	6.2	K4	2-2-2	Std Vel.	set 0.0	sens 5	{4688 4692 H	Fine
0h41m W	−00° 34′	0	7.5	K0	2-2-2	" "	" 2.5	" 7	{4693 4713 Ca	Fine
0 18 W	+56° 55′	0-1	6.2	B1	2-4	" " (OB)	" 5.0 (NF)	" 6	{4716 4720 4	Guiding
1 04 W	+56° 53′	0	7.0	B05	2-2-2	" " (OB)	" 7.5 (SP)	" 7	{4730 4738 G	Fine
					11/8		" 10.0			OK
1 28 W	+29° 42′	0	7.9	A2	2-2-2	KA 6x6	set 0.0	sens. 8	{4743 4763 20	Fine
		0	7.7	A2		" "	" 2.5	" 8	{4764 Ca	
					11/8	clouds by 4h 2-				OK

Three plates strong, esp. much stronger in violet than the recent plates.

Some new tape needed for the arc-striker

147

Date Thurs Oct 6-7 '60 Observer L- Julian Day 2437217.5

⊙ 193 42 55.2 3552.5

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.
25432	MWC 331 H.D. 192044	20 7.8	26 11	I-12½	E103Ao	Set .008		18-53	19 15	1

Dome Temp. 54°F

Focus

Dome Temp.

Transparency Conditions

ding Time E.S.T.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
9 15	D 11E	26 24	0	5.9	Bene	2-2-2	Re Prog., Clouds Semb 786 790	
							3 PHs loaded + 8	

Date Fri Oct 7-8/60 Observer L-Hr Julian Day 2437215.5

⊙ 194 42 07.7 35547

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	
25433	" MWC 361 HD 200775	21 00.4	67 47	I-12½	E103Ao	Sut .008	15.0	18 44	18 56	6E
25434	MWC 383 HD 209292	21 57.2	56 14	"	"	"	15.0	19 06	19 38	13E
25435	MWC 376 HD 206773	21 39.3	57 17	"	"	"	15.0	19 44	19 52	10E
25436	HDE 235618	21 43.5	54 53	"	"	"	15.0	20 56	22 48	12W
25437	MWC 402 ND 223501	23 46.0	61 39	"	"	"	14.9	22 57	23 11	13W
25438	BD +61°40	00 15.0	61 58	"	"	"	14.8	23 32	02 10	15W
25439	MWC 29 HD 13661	02 08.1	54 04	"	"	"	14.3	02 23	03 14	12W
25440	MWC 53 HD 26906	04 10.1	45 58	"	"	"	14.1	03 21	03 47	11W
25441	HD 37171	05 31.5	+10 58	"	"	"	14.3	04 01	05 01	
	Flare 7-8	07 B.								

Dome Temp. 59°F — Transparency Conditions Magnificent!! — 150

Focus .....

Dome Temp. .....

a very good night!

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
1 16E	68 02	1	7.2	B5e	2-2-2	Be Prog.	Strong
1 33E	56 32	1	8.1	B5e	2-2-2	" "	fine
1 00E	57 33	1	7.0	Bone	2-2-2	" "	Strong
1 52W	55 10	1	10.34	B1 V	2-2-2	OB prog.	fine
0 13W	62 01	1	8.2	B3e	2-2-2	Be Prog.	too strong
2 42W	62 12	1	10.03	Be(e)	2-2-1	OB prog	fine
1 52W	54 23	1	8.6	B3ne	2-2-2	HD-Be	strong
0 24W	46 09	2	8.6	B3ne	2-4	" "	strong
0 12W	+11 02	1-2	7.59	K5 III	3-3-3	vdB-S.B. Set 3.	strong
					11/8	" 8	I.K

Lens 7 806 814
Lens 8 817 837
Lens 7 840 848
Lens 8 857 917
Lens 10 927 958
Lens 8 1008 017
Lens 10 1043 5148
" 8 5169 5172
" 8 5193 5196
7 5232

2 PH. Loaded. Plates Needed.
H. en M.

Note that all tend to be too strong except the 10m stars. Adjust exposures accordingly next night

Date Saturday Oct 8/9 1960 Observer HSH MS – HV Julian Day 2437 216.5

⊙ 195 41 22.4 3557.0

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.
25442	HD 190658 HR 7680	20 00.8	+15 13	I-12	103a0	.008	+17.3	21 49	22 11	4
25443	SZ Psc	23 08.3	+2 08'	"	"	"		22 26	22 42	3
"	" "	"	"	"	"	"	"	22 42	22 58	3
25444	HD 12302 MWC 23	01 55.6	+59 12	"	"	"	+17.0	23:40	23 58	1
	"	"	"	"	"	"		00 06	00 22	1
	"	"	"	"	"	"		00 33	00 41	1
25445	MWC 63 HD 20017	03 07.9	48 19	"	"	"	"	00 57	01 17	2
25446	MWC 79 HD 245940	03 49.3	44 38	"	"	"		01 52	02 02	3
25447	MWC 114 HD 37115	05 31.0	−05 41	"	"	"		02 15	02 57	4
25448	BD+49° 967	03 26.5	+49 59	"	"	"	16.7	03 16	05 24	1
	[illegible] + 0918									

ome Temp. +55 | Transparency Conditions 00h05 Thin Cirrus | 152

ocus

ome Temp.

our Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
2h 57W	+15° 24'	0	~8.0	gM2	3-3-3	vdB SB	Lweak
	+ 2 29		8-7	G5	3-4	spect. bin. set 5	weak
0:41W	+ 2 29	1	8.7	G5	2-2-2	" " set 9	weak
108E	+59 31	0	8.2	B3e	2-2-2	Hd Be " 5	Lstr
041E		0-1	"	"	6	Exp. Test. " 2	fair
		0-1	"	"	6	" " " 8	good
107E	48 32	1-2	7.9	Bgne	6	HD Be " 3	fair
057E	44 49	3	7.8	Bsne	6	" " " 5	fair
142E	——	2	8.2	Bsne	6	" " " 5	fair
248W	50 10	1-2	9.2	A2	2-2-2	α Pers. 1050 " 5	fair
					"/8	" 9	

3PH Roll Pat used

found NGC 6720 in 74" to start 200 sitters - HSH&ML

153

Date Sun Mo Oct 9/10 1960 Observer VCS - IKi Julian Day 2437217.5

@196 40 39.4 3559.3

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.
25449	HD 190658	20h 00.8	+15° 13'	12"	E193a0?	.08	18°	18h 40m	19h 14m	2
25450	HD 219113	23h 08.3	+02° 06'	12"	"	"	"	19h 46m	20h 24m	"
25451	HDE 235618	21h 43.5	+54° 53'	12"	"	.16	19	20h 50	22h 15m	4
25452	HZ 4302	0h 46.0m	+40° 43'	12"	"	.08	19	22h 22	22h 35m	1
	4806	0h 45.0	+40° 16'	12"	"	"	"	23h 40	23h 57m	
	4727	0h 44.3	+60° 32'	12"	"	"	"	23 05	23 05	
25453	3692	0h 36.4	+38° 21'	12"	"	"	"	23h 16m	23h 33m	2
	3431	0h 32.1	+39° 47'	12"	"	"	"	23 41	23h 50	
25454	HD 3765	0h 35.3	+39 40	12"	"	.08	17°c	00h 55m	01h 42m	
25455	HD 21650 MWC 68	03 24.6	+ 41°25'	12	"	"	"	01 53	02h 10m	
25456	HD 26420 MWC 82	04 05.7	+4152	12	"	"	"	02h 26	03 00	
25457	HD 29866 MWC 88	04 37.3	+40 36	"	"	"	"	03 11	03 21	
25458	HD 31293 MWC 93	04 49.4	+30 24	"	"	"	"	03 31	04 12	
25459	HD 34921 MWC 107	05 15.5	+37 35	"	"	"	18.5°	04 17	04 42	
25460	HD 37202 MWC 115	05 31.7	+21 05	"	"	"	"	05 50	05 52	
	Focus Test	09						05 52	05 55	

Dome Temp. 65°F

Focus —

Dome Temp. 52°F

Transparency Conditions Clear in North

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS				Quality
0 07 W	+15° 25'	0	8.0	gM2	3+3+3	vdB SB	465 - 475			Lovely
2 08 E	+02° 30'	0+	8.7	SS	2+2+2	SB Hard S2 Psc.	492			Good
1 20 W	+58° 09'	0+	10.34	B III	2+1+1	OB Progrm(me)	5512 5600			Too much
1 17 E	+41° 02'	0+	7.22	A0	2+2+2	vdB Andromeda	610 - 616	pos 2		overlap
3 56 E	+40° 36'	0+	7.92	B8	6	" "	617 - 623	pos 5		
3 46 E	+40° 50'	0+	4.75	B3	6	" "		pos 8		fine
3 08 E	+38° 41'	0+	7.6	B8	6	" "	625 - 631	pos 3		fine
0 15 W	+40° 09'	0+	6.84	A0	6	" "	632 - 637	pos 2		very
2 02 W	+40 00	0	8.2	K5	2-2-2	Std Vel. — (set 1 no good) set 5		sens 8	{5647 5662	15 good
1 39 E	+41° 38'	0	7.2	B5 ne	2-2-2	Be. set 1		sens 8	{5663 5669	6 weak
2 49 E	+42 03	0	7.6	B3 ne	2-2-2	Be set 1		sens 8	{5676 5691	15 weak
1 38 E	+40 45	0	6.1	B4 ne	2-2-2	Be set 1		sens 6	{5692 5695	3 fair
0 17 W	+30 30	0-	7.5	A0ep	2-2-2	Be set 1		sens 8	{5676 5711	15 good
0 21 W	+37° 40	0-	7.4	B0 ne	2-4	Be set 1		sens 7	{5713 5719	6 weak
0 17 W	+21 08	0-	3.0	B3e	6	Be set 1		sens 4	1 count	Okay
0 20 W					6	Be set 5			2 count	
					11/8					

Date Mon Oct 10-11/60 Observer L-H v Julian Day 2437218.5

⊙ 197 39 58.7 3561.5

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.I
25461	MWC 350 HD 196712	20 34.0	-02 46	I-12½	IIaO	1st 008	19.9	19 40	19 48	1
25462	MWC 366 " 203374	21 16.7	61 25	"	"	"	19.9	20 25	20 35	2
25463	MWC 395 " 217543	22 56.3	38 10	"	"	"	19.8	21 26	21 34	3
25464	MWC 397 " 218393	23 02.6	49 50	"	"	"	19.7	21 43	21 57	4
25465	MWC 407 " 224559	23 53.8	45 52	"	"	"	19.7	22 01	22 09	1
25466	MWC 409 " 225905	23 58.3	55 00	"	"	"	19.5	22 38	23 00	2
25467	MWC 10 " G343	00 59.4	65 26	"	"	"	19.4	23 34	23 46	3
25468	MWC 13 HD 9105[illegible]	01 24.6	62 51	"	"	"	19.5	0130	0200	4
25469	MWC 76 " 233[illegible]	03 44.3	63 11	"	"	"	—	0213	0313	1
	[illegible]	[illegible]	O7. B							
25469 F	Does not [illegible]									

Dome Temp.... 65°F
Focus..... 12.68
Dome Temp.....

Transparency Conditions ..... Good
Intermittent clouds d.t. midnight (EST)

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS		Quality
D 12W	-02 32	O	6.3	B9e	3-3	Be Prog.	Sens 6 836	fine
D 18W	61 43	O	6.6	Bone	3-3	" "	" 6 839	fine
D 25E	38 27	O	6.4	B3ne	3-3	" "	" 6 844	fine
D 07E	49 56	O	6.8	Ave	3-3	" "	" 6 847	fine
D 46E	46 08	O	6.5	B3e	3-3	" "	" 6 849	fine
D 00	55 17	O-1	7.6	B1e	2-2-2	" "	" 6 852	fine
D 16E	65 42	O	7.1	B5ep	2-2-2	" " clouds	" 6 856	fine
133W	63 04	1	7.5	eB5e	2-4	" "	" 6 859	fine
025W	—	1	8.1	B3ne	2-2-2	" " Set 2 Clouds	" 6 861	fine
					11/8	Set 3 " Windy	" 6 864	fine
							" 7 866	fine
							" 7 874	fine
							" 7 881	fine
							" 7 889	fine
							8 5874 5926	fine
							8 5932 5953	Good?, fair Comp mod to vi

I.P.H. 12 II AO

Oct. 11

MC	sc	ME	S
+6.0	-20.3	-2.0	+20m55.6

(HD)

Date Tues-Wed Oct 11/12 1960 Observer MR - Ki Julian Day 2437219.5

⊙198 39 20.2 3563.9

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.
25469F	Focus Test					Focus .008 set	+17.6			1
25470	HD 190658	20h 00m 8	+15° 13′	F12½	IIa-O	.008	+17.4	20:17	21:17	2
25471	HD 217312	22 54.8	+62 32	"	"	"	+17.0	21:27	22:09	4
25472	BD 63° 1962	23 12.8	+63 15	"	"	"	+16.9	22:19	00 13	4
25473	BD 61° 2509	23h 39.0	+61 36	12½	"	"	16.9	00 25	02 43	1
25474	HD 20053	03 08.3	+59 40	"	"	"	17.0°C	03 00	04 05	2

Focus Test. OTB.

Dome Temp. +50°F at midnight — Transparency Conditions clear after 01^hr clouds low in north.

Focus 12.68 changed to 12.72 as result of 25469 + 25469F. — Scattered clouds 03^h30^m

Dome Temp.

Ending Time E.S.T.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS		Quality
				17/12			OTB Set 1		
1:17	:18 W	+15° 20′	◯	N8.0	M2	+_5_5	Set 2	vdBSB 8 {5962 5987	25
2 09	:17 W	+62 49	O	7.81	B0 IV	8-8	" 2	OB 8 {7991 8016	45
3 13	.03 W	+63 32	O	8.7	B1 III	5-5-5	" 7	" 9 {6019 6109	60
4 43	4 08W	+61 52	O⁻	8.7	B0.5 I_b	5-5-5	set 1	OB (seeing very poor on second half of exposure) Sens 9 {6111 6201	30
4 05		+59 49	O⁻	7.9	A_0	5-5-5	Set 1	KA 6×6 (NP) ? The brighter one Sens 8 {6207 6232	25
	04^h00 — hazy observing clouds								
	04^h30^m — no better.								
						17/12	set 5.		
							II 90 plates → 3pH2 hdt + 4 in box		
			ME	SC	ME	S			
		Oct. 12	+6.2	-20.4	-2.2	+20^m5			

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W₂ — Hν

Date 26.1 Oct. 12 - 13 Observer W. AST Julian Day 2437220.5

199 38 44·1 3566.2

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.I.
25475	HD 187691	19 46.2	+10 10	I-12	Special Old	.008	16.7c.	18 15	18 19	2
25475								18 30	18 36	
25476								18 38	18 41	
76								18 45	18 48	
25477								18 54	18 57	
77								19 02	19 08	
25478	"	"	"	"	"	"		19 15	19 18	"
78	"	"	"	"	"	"		19 19	19 23	"
25479	HD 193510	20 13.3	+2 17	I-2	IIaO	.008	16.2	20 54	21 34	
25480	HD 193[illegible]	20 13.1	02 34	-	-	-		21 37	22 39	
481	HD 193509	20 46	02 26	-	IIaO	"		22 47	23 35	
25482	HD 193[illegible]	20 44	02 30	-	IIaO	"	16.3	23 43	00 19	
25483	HD 5871	00 47.5	60 [illegible]	"	"	"		00 36	01 06	
25484	HD 261[illegible]	04 03.1	17 01	"	"	"		01 26	02 46	
	"							02 54	03 52	

ome Temp. 65°

ocus —

ome Temp. 60°

Transparency Conditions Clear

100

ding Time E.S.T.	our Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.		REMARKS	Quality
19	00h 21	+10 17	1	5.8	F8	—	Sens 6	W.H. CLARKÉ 2 counts	
36	00 04		1		"	6	"	D. LAPINSKIE 2½ "	
41	50 01		1		"	6	"	B. PASICOV 3 "	
	00 08		1		"	—	" much too long exp.	S. HOLM 3½	
57	00 17		1		"	6	" ?	J. Ruch 3½	
08	00 28				"	6	"	J. Brecker 4	
	50 3[illegible]	"		"	"	6	"	J. Dece 4½	
23	00 43	"	"	"	"	6		R. HENRY 5	
							"#2" on plate refers to second exposure.		
	0[illegible]	63 15		9.1	[illegible]	2+1	Sens 9	III Cpt OB Foc 9	6292 - 6334
	0 23 W	63 53		8.7	[illegible]	2+2+2	" 7	" OB Foc 6	6331 - 6355
	[illegible]	64 45		8.4	[illegible]	3+5	Sens 8	I Cpt OB Foc 2	6396 - 6421
	10 E	70 43	0-1	8.0	Bane.	5-10	" 8	Rc	6422 - 6452
	1[illegible] W	60 03	1	7.27	A2	5-5-5	" 3	[illegible] Set 2 KA6Y6	
	1[illegible] E	17 0[illegible]	0-1	7.6	A0	5-5-5	" 8	[illegible]	
	[illegible] (W					5-5-5	" 8	[illegible]	

Date Oct 12-13/60 Cont. Observer — H — Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.
2548v	HD 37171	0531.5	+10 53	I-120	IIa-O	.038	16.0	0409	0541	
	Trans	9 east		07B						

Dome Temp.....

Focus.....

Dome Temp.....

Transparency Conditions.....

Ending Time E.S.T.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
4	6116W	—	0-1	7.59	KSII	5-5-5	Set 3 wd B Spect Bin. #7 6570 6593	
						18/12	" 8	
							1 P.H. Feeder II aO	
							II aO's Needed in Dec.	
							?? 103aO's in Dec. (Exposed in ½ Pass)	
		Oct. 14	MC +6.5	SC -20.2	ME 0.0		S +20m57.0	
							Set Co 170 Hours	
							Guider & Servo System Shown	

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18h 22.9
+7° 5 3.4

Date Sum. Oct 16-17/60 **Observer** Kd-H ~ **Julian Day** 2437224.5

203 36 42.6 3575.2

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.
25486	HD 170562	18 25.0	+17 55	I-12	IIa0	008		18 48	19 28
25487	HD 172068	18 33.0	+41 12	"	"	"	+16.3	19 35	20 19
	Fourstar		OT 13.						
25488	BD +54 2726	22 13.0	54 59	"	103a0	"	+16.4	20 37	22 31
25489	HDE 235783	22 13.4	+54 00	"	"		+16.0	22 37	23 47
25490	BD +47 776	03 09.3	+47 45	"	103a0	"	16.7	23 58	01 20
25491	BD +42 865	03 07.1	42 16	"	"	"		01 28	02 56
25492	HD 26162	04 03.8	+19 21	"	IIa0	"	15.5	05 15	05 45
	Pleiades		OT 13		"				

Dome Temp. 54

Focus

Dome Temp.

Transparency Conditions Good after zenith cleared 764

0500 Few bits of cloud, windy. Image unsteady.

Ending Time E.S.T.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
	-1 2 25	17 54	0	6.5	B9	5-5-5	Set 1 KA 8x8 Field should be checked. zeros 7 6602 6611	Fine
	-1 3 09	41 14	0	6.86	A0	5-5-5	Set 5 KA 8x8 NP * 8 pairs zeros 8 6612 6632	Fine
						18/12	set 8 Field Good K. Red	
	-1 1 41	55 12	0	9.2	B3 II	2-2-2	set 1 OB } Some uncertainty about field, see sketch zeros 9 6634 6674	Cloudy Good
	-1 2 57	54 14	0	8.8	B II b	2-2-2	set 5 OB } pages 20 zeros 9 6677 6717	Fine
	-1 2 3E	47 [illegible]	0	8.6	F0	2-2-2	set 1 α Per Cl. # 10 zeros 9 6723 6764	Good
	-1 3 1 W		00	9.0	A7	2-2-2	" 5 " " # 220 " " 7 6767 6810	Good
	-1 3 0 E W	-19 27	00	6.4	K1	5-5-5	" 2 E-D View " 6 6815 6820	Fine
						18/12	" 8 Field Clear & Good	
							IRH Loaded II 0 + 10 [illegible]	
							2 103-0 " " Plate	
		Oct. 17						
		MC SC		ME S				
		+7.7 -20.5		-0.8		+20m 56.7		

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Date Mon. Oct. 17-18/60 Observer L — Ki Julian Day 2437225.5

204 36 17.8 3577.4

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.
25493	HDE 235783	22 13.4	54 00	I-12½'	Baker IIAO	Set .008	15.3	19 01	19 27
	Flocculent					OTB			
25494	BD +54° 2726	22 13.0	54 59	"	"	"	15.3	19 39	20 41
25495	BD +53° 2843	22 15.0	53 46	"	"	"	15.2	20 49	22 39
25496	BD +60° 2615	23 39.9	61 07	"	"	"	15.1	22 43	23 49
25497	BD +61° 2526	23 42.8	+61 29	"	"	008	14.9	00 03	00 54
25498	HD 9138	01 24.9	+05 38	"	un Baked IIaO	"	14.8	01 05	01 25
25499	HD 22484	03 31.8	+00 05	"	"	"	"	01 34	01 45
25500	HD 3765	00 35.3	+39 40	"	Baked IIaO	"	"	02 03	03 13
	Form Test.				OTB.				

Dome Temp. 56°F
Focus Fixed. (48° at 24°)
Dome Temp.

Transparency Conditions very clear (24°)
02h34m Aurora breaks ~ North at middle
Flat dark 90° wide ±10° high ~ by 02h37m was 20° high ~ middle
light clouds 03:00 | Sporadic meteors about 2 per min
15 min some light trails for 5-8 sec.

Ending Time E.S.T.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS		Quality
9 27	1 21 E	54 13	1	8.8	$B_1 I_b$	3-3-3 14/10	OB prog.	Sens 9 6825 6865	good ok/neb
0 41	0 06 E	55 14	1	9.2	B_1 II	3-3-3	OB prog.	" 9 6880 6909	good
2 39	1 40 W	54 00	1	9.5	O_8	2-2-2	" "	" 9 6912 6952	good
3 49	1 35 W	61 26	1	9.2	$B_{0.5} I_b$	2-2-2	" prog.	" 9 6957 6997	good
0 54	2 38 W	61 48	1	8.8	$B_2 I_b$	2-2-2	OB prog. set 7.5	Sens 9 {7003 7043	good
	0 27 W	+05 56	1	6.2	K4	5-5-5	Std Vel. set 1	Sens 6 {7049 7085	good
1 46	0 20 E	+00 16	1	5.2	F9	5-5-5	" " " 5	Sens 4 {7056 7064	good
3 13	1 04 W	+39 57	0	8.2	K5	2-2-2	" " " 1	Sens 8 {7065 7085	poor
		3:30 (EST)				14/10	cirrus clouds have moved from north		thin

4 PH (Bald Iac) + 4
+ 12 (on Bald Iac)
+ 4 on M1

(Aug 30) 107

Date Tues/Wed 18/19 Oct Observer MR-HS Julian Day 2437226.5
205 35 55.2 3579.6

Plate No.	Object	R.A. 1900 h m	Declination 1900 ° ′	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.
1048-119	1 Vul	19 14.5	+21 49	40 x 2		.020	5/5	18:48	
1049-119	9 Cep	21 37.1	+61 54	"		"	5/6	21:13	
25501	BD61°2526	23 42.8	+61 29	12½	Plated IIa-O	not .008	8.8C	23:58	0220

Oct 19/20 [illegible] 8 5

25501 F2	Set	0	-11
PH2		2	+58
exposure 10/16		4	11
[illegible]		6	-20
[illegible]		8	+55
T=8.2°C		10½	-30

Oct 19

25501 F1	S	PH
	0	1
[illegible]	2	2
T=9°C	4	3
	6	4

Hartmann [illegible]

Dome Temp.....

Transparency Conditions .....

Focus.....

Dome Temp.....

0210 Solid Cloud. !!

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
	+21° 18'		4.6	B5n	30"	2"/min; 1A/S W 42W - 45W	B
	+61 54		5.02	B2Ib	"	" " Sky again	BD
						clouds	
+02W	61 48	0	8.8	B2Ib	2-4	cut 2 OBJ. 24	
					8/6	" 8	

900V Lit →

9 {7093 7120

Oct 19	Set	Focus	Ptg. Mag.
-10°C	0		12.66
Int. on	2		12.68
Int F	4		.70
H1	6		.72 ← Best.
F5 01F3	8		.74
	9½		.76

3 P.H. + 4 B~~ad~~ I ~~a~~ 0

12 Unbaked I a0 (12 more baked II ad m fog)

?? 103a0

H. O. M.

Oct. 19

MC	SC	ME	S
+8.5	-20.2	+2.3	+20m 57.5

Oct. 21

MC	SC	ME	S
+10.0	-20.1	0	+20m 57.6

Oct. 24

MC	SC	ME	S
+12.2	-20.4	-1.0	+20m 57.3

Date Oct 25-26/60 Observer MR - Hr Julian Day 2437233.5

212 34 12.3 3592.3

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.
1050-120	HD 190403	20 03.1	+32 06	48 x 2 x 2		.020	6/3 [#4]	18:35		
1051-120	HD 194839	20 24.9	+41 15	48 x 2		"	461	20:05		
1052-120	HD 216711	22 52.4	+62 23	48 x 2		"	465	21:00		
1053-120	Munich 32			"		"	467	21:43		
1054-120	Blaauw 298			"		"	564	22:15		
1055-120	HD 4694	00 47.2	+64 23	"		"	461	23:44		
25502	LD +47° 776	C304.3	117 45	I-12½	IIa-O Ilford	.008	+3.3	0059	0139	
	"	"	"	"	"	"	+3.2	0140	0336	

[illegible] Tube [illegible] 0°/B

[illegible] Tube [illegible] Tube [illegible]

Wrong [illegible] The next Two were looked at 12½°F in the darkroom for

Dome Temp.....

Focus 12.72

Dome Temp.....

Transparency Conditions 0100 Brilliant Aurora
0130 Thin Cirrus

* about 30 Asiu 26
Student - HBSH

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Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	dist	Quality
			6.18	B1.5Ia	30"	2"/min; 1A/S 4200-4570 *	B	
			8.49	B0.5Ia	"	" "	B	
			9.67	B1V	"	#20 in Heliun string aurora	III Cp	
			11.23	B9V	"	#28 in H.Cluster still some aurora	"	
			12.46	B5-A0?	"	#27 " "	"	
			9.22	B3Ia	"	299.20 ≡ π Cas	OB	
1032 W	+4753	1+	8-6	F0	3-3-3	Set 2 α Per Cluster H104 #8 7123 7143	15'	good
2.27W					3-6	" 5 " 7145 7161	9	"
					3/6	" 9		fair, OK (cool)
						1 PH Limit Exp 3 hrs		
						4 Boxes Plates 1 - Lick 0		
						1 - " "		
						1 - " "		
	MC	SC	ME	S				
Oct. 26	+14.3	-20.1	0	+20m 57.7				

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Date..... Observer..... Julian Day.....

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.
	Oct 26/60	1ST 8		Oct 26/60	KA1		Oct. 26 1960			
22502 F1	ADT - ½	Focus	22502 F3-F4			22502 F2 -				
	1	13 77		-½	12.79		-½	12.78		
Temp 4°C	2½	75	Hartmann	1	12.77	Temp 4°C	1	12.76		
	4	71	Focus	2½	12.75	Hartmann	2½	12.74		
Hartmann	5½	69		4	12.73	Test	4	12.72		
focus 1ST	7	67		5½	12.71		5½	12.70		
	8½	65		7	12.69		7	12.68		
	10	63		8½	12.67		8½	12.66		
				10	12.65		10	12.64		

Dome Temp.... .....

Focus.....

Dome Temp.....

Transparency Conditions..... ....

ding Time E.S.T.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality

Date Thurs Oct 27/28 - 60 Observer L - Hr Julian Day 2437233.5
214 51.6 35956

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.	Hour Angle End
25503	BD +54° 2761	22 19.9	55 11	J-12½'	Baked IIaO	Set .008	+9.9	20 48	0038	4	
25504	BD+48° 874	03 14.8	48 52	"	"	"	10.0	00 50	0104	1	
25505	HD 37171	05 31.5	+10 58	"	"	"	9.8	04 15	0601	2	
	Plate 7		OTB.								

Dome Temp 4
Focus 12
Dome Temp.

Dome Temp. 47°F

Transparency Conditions

Focus 12.72

Dome Temp.

About 60 MR's extension course showed M15, with 74"

ding Time E.S.T.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
	4 25 W	55 29	0-1	10.32	O5f	3-3-3	Set 2. OB. neg. Lens 10 7189 7338	
	3 55 W	49 03	0	9.1	A9	3-3-3	" 5 α Pers. " 9 7343 7403	
	3 35 W	11 02	0	7.57	K5III	4-4-4	" 5 vd B " 7 7406 7420	
						10/3	" 9	

H - M.

2 P.H. + 4 B-tail II = 0

Beam 13

MC SC ME

Oct. 28 +16.2 -20.0 +2.0

Date Friday Oct 28/29 1960 Observer MS - HV Julian Day 2437236.5

215 33 54.2 3597.2

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.
25506	HD 190658	20 00.8	+15 13	I-12	baked II a-O	.008	12.0	18:44	19:04	3
25507	"			"	"	.008	12.0	20:07	20:43	3
25508	VW Cephei			"	"	.016		19:16	19:30	4
	"			"	"	.016		19:31	19:45	4
	"			"	"	"		21:05	21:15	4
	"			"	"	"		21:15	21:26	4
	"			"	"	"	11.7	21:27	21:59	4
	"			"	"	"	11.6	22:38	22:47	4
25509	HD 21742	03 20.5	+28° 23'	"	"	.008		23:15	23:25	1
	"			"	"	"		23:25	23:35	1
	"			"	"	"		23:35	23:45	1
25510	BD+51° 723	03 15.3	+51 18	"	"	.008	11.6	00:11	01:13	2
[illegible]	[illegible]	[illegible]	[illegible]	"	"	"		01:21	[illegible]	1
[illegible]	[illegible]	[illegible]	[illegible]	"	"	"	11.4	03:08	[illegible]	3
[illegible]	HD [illegible]	[illegible]	[illegible]	"	"	"	11.4	[illegible]	[illegible]	

Dome Temp. 52°F

Transparency Conditions good Clouds at dawn

Focus

Dome Temp. sidereal clock seems 6 to 45 sec. slow.

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Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
1:13 W	+15 22	1	8.0	gMz	3-3-3	set +1 (wdB) SB seus 8	7458 83
1:52 W					3-3-3	set +6 " "	7542 07
1:05 W	+75 27		5.1	K1,96	3-3-3	set -1 Ms VW seus 8	7487 7512 7513 28
1:20 W	"				3-3-3	set +2 " < telescope reversed	
2:49 W	+75 30				3-3	set 4 "	7573 7692 7693 7713
3:02 W	"				6	set 6 "	
3:34 W	"				6	set 8 "	7615 slow at 15, 1 stopped
4:22 W	"				6	set 10 " < telescope normal (west)	7693 37
1:45 E		1	7.29	G5e	3-3-3	set 0 SB seus 8	7640 -4 75 01 03
1:36 E					4-4	set 3 "	
1:25 E					4-4	set 5 "	
0:07 W	+51° 28'	1	9.0	A3	3-3-2	set 2 x Perseus #523 seus 9	7854 7900
1:51 W	48 46	1	9.1	F4	3-3-3	" 8 " " #421 " 9	7903 7917
1:05 W	47 17	1	9.1	A3	3-3-3	" 2 " " E+P1 " 9	7956 Bode
2:07 E	+02 37		5.5	K3	8	" < Stove " 6	8017 8018 (?)
					7/7	" 7 #4PH Loaded B	

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I = K. Innanen.

I

Date Saturday Oct 29/30 1962 Observer HH — Ki Julian Day 2432237.5

216 33 51.4 3598.9

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.
25514	BD +61°2529	23 43.6	+61 26	I 12	BAKED IIaO	.008	12.8°C	22 42	23 20	2
25515	HDE 235813	22 18.4	+54 18	I-12	BAKED IIaO	.008	13.1	23 37 46	01 03	1
25516	BD 47° 780	03 05.3	+47 32	I-12	103aO	008	13.0	01 16	02 08	1
25517	BD 50° 728	03 09.4	+50 58	"	"	"	"	02 17	02 50	1

Four Tau OB.

Dome Temp. +50F

Focus 12.69

Dome Temp. +46°F

Transparency Conditions

200 visitors showed M15 + ☿ with 74" and 5"
Hd, Ki, I.

Ending Time E.S.T.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS			Quality
	1 50	+61° 48'	1	8.4	$B_1 I_b$	3-3-3	set 2. OB proj p 24.	zero 8	8314 8028	fine
	500 W	+54' 36	1	8.9	B_0 III	3-3-3	set 85 " " p. 20 wrong start at set 8	zero 9	8041 8086	fine
	1 16 W	+47 40	1	8.8	F_1	2-2-2	set 1 # 151 α Per Cluster.	zero, 9	8087 8127	fine.
	1 54 W	+51 17	0	9.1	F_2	2-	" 5 3/4 " " "	" 9	8132 8140	
			02:45 - thin cirrus.			10/7	* 3:30 no better. set 9			No Control

1PH + 7103.0

H. M.

Date Sun Oct 30-31/60 Observer L-H Julian Day 2437 238.5
217 33 50.3 3600.6

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P
	~~BD+60 2350~~	~~22 15.6~~	~~60 46~~	~~I 12½~~	E-103aO	Set .008		19 05		
	BD+48° 905	03 17.2	48 53	I-2½	E 103aO	.008	11°	00 01	0 22 1	
25517	"	"	"	"	"	"		03 35	03 51	

25519 F2 (brass p.h.)
IIaOX Thin 21/16 GTB

AST 8
25519 F1

FOCUS TESTS
1.H was 20.35
changed to 19.85
slit .008
ph #3.
Frames 11mg/cm²
20/16

SET	FOCUS
-½	12.76
1	12.74
2½	12.72
4	12.70
5½	12.68
7	12.66
8½	12.64

SET	FOCUS
-½	15.8
1	15.7
2½	15.6
4	15.5
5½	15.4
7	15.3
8½	15.2
10	15.1

Reset focus and tilt to original Values.
f = 12.69.
tilt = 20.35.

Dome Temp. 52°F

Focus 12.69

Dome Temp.

Transparency Conditions

Clouds.

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
		0-1	9.3	B_2 III 2		Set 2½ OB Prog. Sinsto 8175	
1:20 W	H 903	0 0	9.0	A 0	2-2-2	Set 6 & Pins #60	#9 8214/8256 Good.
1:35 W	H 904	0 0 0	9.0	A 8	2-2-2	" 2 " #635	#9 [illegible] Good
					P/6	" 8	OK
						P Hi-Et 4 Foc'd 1030.0 T 5	
					MC	SC ME S	
			Oct. 31		+19.3	-20.6 +2.1 +20m56.3	
			Nov. 2		+20.5	-20.8 -0.5 +20m56.3	

Nov. 2-3

Date Wed Nov 2 /1960 Observer — Ki Julian Day 2437240.5

219 33 53.2 3604.0

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	Pl.
25520	BD 49 918	03 17.1	+49 59	12	103a.0	008	08°c	00 45	1 45	4
	Focus test		OTB.					02.80		
								03 20+ clear again		

Dome Temp. 44° F

Focus Excell.

Dome Temp.

Transparency Conditions scattered clouds 00h 52 182

clear by 01h 00

Ending Time E.S.T.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
		+50° 10	1	9.1	F0	2- 4	set 2½ d per # 609. save 9 {8330 6340 (D)	Vert.
						8/6	set 7½	vert
							~~wind~~ wind too strong (gusty)	
							1 pH leaked E 102 d + 4	
							clouded clouded : EST — 17m fast. Sidereal — ??? !	
							H m M.	
			MC	SC	ME	S		
		Nov. 4	+22.3	-20.9	+0.8	+20m 55.7		
		Nov. 7	+25.2	-21.0	+3.0	+20m 55.1		

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Date Nov 7/8 1960 Mon-Tue Observer Br — Ki Julian Day 2437246.5

225 34 45.6 3615.5

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.
~~2552~~	~~HD 6378~~	~~00 21.N~~	~~+65 55~~	~~2~~	~~103a-O~~	~~2mm~~	~~2.1°C~~	~~23 24~~	~~2352~~
2552#1	HD 6378	00 59.4	+65 26	1½	103a-O	2mm	2.1°C	23 24	23 49
2552#2	[illegible]	[illegible]	[illegible]	[illegible]	103a-O	2mm	2.2°C	23 24	23 49
2552#3	BD 47° 809	03 14.9	+47 36	1½	IIaO Baked 72h@115°F	008	2.6°C	00 11	01 06
2552#4	48 886	03 12.6	48 17	1½	103a-O	008	2.6°C	01 14	01 30
2552#5	48° 865	03 07.1	48 16	1½	103a-O	008	2.0°C	0140	03 15
	focus test	ATD	Prism f/4						0345
2552 5 E	set	— 1	— focus 16.5						
T = 5°C		1	— .4						
el 2.108		2½	— .3						
		4	— .2						
		5½	— .1						
		7	— 0						
el C → ✓		[illegible]	— 15.9						
		10	— .8						

Dome Temp. 33°F — clouds @ 0015 intermittent all night! — Transparency Conditions clear after 20:00

Focus FIXED. — Power Cut off 22:20! Clocks Reset

Dome Temp. 29°F — Haze by 2300

Ending Time E.S.T.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	4 46 W	65° 41'	1-	7.1	B5eβ	2-2-2	Set 5 [illegible]	[illegible]
[illegible]	0 28 E	47° 51'	1-	8.1	A0	2-2-2	Set 2 No 25 after #255	[illegible]
01 06	0 40 W	+47 47	0	8.3	A0	3-3-3	set 2 " #507	[illegible]
01 30	0 10 S W	+48 29	0-	7.6	A0	3-3-3	set 5 " #423	[illegible]
01 55	0 25 6 W	+48 26	0-	9.0	A7	3-3	set 2 #220	[illegible]
				clouds.				
						10/8		

1st P	Focus T=	SET	Focus
2:525 F_2	Tel 20.35 set at 19.95	-1/2	12.78
	slit .002	1	12.76
	ph #2	2 1/2	.74
	Gain H.S 22/16	4	.72
		5 1/2	.70
	focus returned to 12.69 ←	7	.68
	Wt " " 20.35 ←	8 1/2	66

PH #183 Rec'd with IIaO Baked

PH # 4 " " E10340

+ 8 IIaO Baked

Hm M.

	MC	SC	ME	S
Nov. 11	+30.0	-20.8	-2.5	+20m 57.3

New Batteries Needed Fast End!

185

Date Sun Nov. 13-14/60 Observer L-Hr Julian Day 2437252.5

231 36 48.0 3627.2

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	H
25526	BD +15° 3216	20 39.1	45 32	I-12½	E 103 Ao	Set 008	6.9	18 39	20 39	
25527	HD 3940	00 36.9	63 45	"	"	"	6.9	22 10	22 20	
25528	BD +47° 780	03 05.3	47 32	"	"	"		00 05	0 17	
25529	" 111° 162	03 30.8	41 31	"	"	"	6.2	02 33	04 51	
25530	HD 23585	03 31.3	29 51	"	"	"	"	05 23	06 23	
	To	1-st	07.B							
					?					

25530 F1
R. Henry
Nov. 16

ph 3
t:it 17.35

Set	Focus
-½	12.74
1	12.72
2½	12.70
4	12.68
5½	12.66
7	12.64
8½	12.62

11-1 10 14-1.0

25530 F2
Nov. 16

T 20.35

II a O x Thin

Set	Focus
-½	17.0
1	16.7
2½	16.4
4	16.1
5½	15.8
7	15.5
8½	15.2
10	14.9

Prism Holder

Dome Temp. 45°F

Transparency Conditions Haze & Clouds

Focus

Dome Temp.

Start delayed because of clouds.

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
3 13 W	45 46	1	9.84	B.Vn	2-2-2	Set 2½ O.B. Proj Lens 9 8524 8564	fair
0 55 W	64 04	0-1	7.5	A.Ia	2-2-2	" 7½ O.B. Proj Lens 7 8579 8583	fair.
0 22 W	47 45	1-2	8.8	F1	2-2-2	" 2 α Pers. # 151 " 7 8510 8651	l. streak
0 43 W	47 52	1	8.8	F7	2-2-2	" 9 " 1225 " 7 8711 8719	l. streak
0 13 W	29 17	0-1	7.7	G7	2-4	" 2 STD. VEL. " 8 8723 8740	streak
					10/9	" 2	c→r

1 P.H. +7 F.E.-1 II.0

	MC	SC	ME	S
Nov. 14	+34.0	-20.0	+1.2	+20m57.2
Nov. 16	+36.0	-20.2	-5.5	+20m57.1

187

(Common Exposure Plates)

Date Nov 16/17 1920 **Observer** MR-HS-KI **Julian Day** 2437255.5

234 38 15.0 3632.5

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.
1056-121	ε Gem	23 36.1	+43 03	11 8 x 2		.020	5/5	21:14	
1057-121	ε CMa	1 51.5	+63 28	11 8 x 2		.020	5/3	21:45	
1058-121	α Per	3 21.5	+49 42	1 x 2		.020	4/7	22:27	
1059-121	T(61) Cas	3 18.9	21 01	11 8 x 2		.020	4/2	23:25	
1060-121	29 Tau	3 43.6	5 46	11 8 x 2		.020	4/2	23:44	
25531	BD+18°903	03 16.6	+18° 16	12½	II aO Dak 11.5°F	.008	09.0°C	00 18	00 29
	Four Test	OTB							

Dome Temp. 42°F at Cumulus too Transparency Conditions Clear

Focus FIXED Thick Block Curving Cloud at 00:30

Dome Temp. [illegible] strong wind + telescope unstable (30 mph?)

Ending Time E.S.T.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	List	Quality
				4.28	B8 V	30"	2"/min; 1A/sec 4200–4550	D	
				3.18	B3 II	30"	2"/min; 1A/sec 4200–4500		
				2.3	F8 Ib	30"	2"/min 1A/sec 3850–4500 Sample (Tw Cr Cyg)		
				5-7	B-V/p	30	2"/m 1A/sec 4200–4500		
				5.36	B3 V	30"	2"/m 1A/sec 4200–4500 cloudy		
1:1	0 36 W	+48 25	0	6.8	B9	3-3-3	set 2½ α Per # 581 (Standard) 2m7 {8751 8757		good
						10/8			OK

1PH Corded with Baked II no

+ 6 41 4

+4a M.

Date Thurs Nov 17-18/60 Observer L-H Julian Day 2437256.5

235 38 47.5 3634.1

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.
25532	BD +49° 938	03 21.0	49 37	I-12½	Baked IIAO	1st .008	5.8	22.30	23 10
25533	" +48° 933	03 22.1	48 53	"	"	"	5.8	23 16	23 32
25534	" 47° 840	03 22.8	47 39	"	"	"	5.8	23 36	23 58
25535	" 49° 918	03 17.1	49 59	"	"	"	6.5	00 11	0233
25536	HD 37171	05 31.5	+10 58	"	"	"	5.8	0355	0531
25537	" 66141	07 57.1	+02 36	"	"	"	"	0546	0600
	Moon To	07 13							

Dome Temp. 38°F

Focus

Dome Temp.

Transparency Conditions

0230 - 0400 Intermittent Clouds.

0552 More Flashes Clouds.

190

Ending Time E.S.T.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
2310	0 44E	49 47	0	8.0	A0	2-2-2	Set 2.5 Open. Set 8 8762 8776	fair
2332	0 24E	49 02	0	7.4	A0	2-2-2	" 7.5 " " 8 8779 8793 14	fair
2351	0 02W	47 48	0	7.9	A0	2-2-2	" 2.5 " " 8 8796 8811 15	fair
2413	2 43W	50 11	0	9.1	F0	2-2-2	" 9 " #609 " 9 8813 8858 45	fair
31	3 29W	11 00	0	7.59	K5 III	2-2-2	" 2 VdB Spect. Bin: " 7 8875 8886 11	good
2	4 33W	—	00	5.5	K3	6	" 5 Sto. Vel. " 5 8889 8893 4	good.
						10/8	" 9	OK

1 P. H. + 3 Baked Hao

H. on M.

Need More Stars for Last Half of Last Half.

	MC	SC	ME	S
Nov. 18	+38.0	-19.9	-2.5	+20m55.7

191

Date Fri/Sat Nov 18/19 1960 **Observer** vdB-Hr **Julian Day** 2437257.5
236 39 24.6 3635.6

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	
25538	HD 3877	0h35.8	+39°03'	12"	IIo O sound	.008	+6°	21h05	21h27m	4
25539	HD 4806	0h45.0	+40°15'	12"	"	.008	+5°	21h32m	21h53m	1
25540	HD 4902	0h46.0	+40°13'	12"	"	.008	+5°	21h01	22h13m	1
25541	HD 5201	0h50.2	+39°54'	12"	"	.008	+5°	21h31m	23h10m	1
25542	BD +41° 721	03 10.2	+42 27	"	103aO	"	+6°	0006	0130	1
25543	- 46° 778	03 18.6	+46 14	"	"	"	"	01 50	02 [illegible]	1
25544	HD 5186	07 [illegible]	-01 2[illegible]	"	"	"		03 26	[illegible]	1
	"	"	"	"	"	"		[illegible]	[illegible]	
25545	HD [illegible]	[illegible]	[illegible]	"	"	"	1[illegible]	[illegible]	[illegible]	
	[illegible]	[illegible]								

Dome Temp.... 40°F

Focus..... Sume

Dome Temp.... .....

Transparency Conditions Partly cloudy
10/10 cloud 22:5 – 22:30

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
5h 25m W	+39° 18'	0-1	8.0	B3	3+3+3	Set 2 ~7895-903 vdB And = BD +38°91	fair
5h 40m W	+40° 34'	0-1	7.92	B8	3+3+3	Set 8 903-11 vdB And = BD+40°172	fair
5h 00m W	+41° 00'	0-1	7.22	A0	3+3+3	Set 2 912-18 vdB And = BD+40°177	fair
5h 40m W	40° 14'	0-1	8.6	A0	3+3+3	Set 7 918-32 vdB And = BD+39°127	fair
0h 14m W	+49 37	1	9.0	A9	2-2-2	" 2 ∝ Per., #535	#9 8943 8983 40 fair
0h 31m W	46 53	1	8.9	A3	2-2-2	" 9 " #665	#7 8988 9030 42 fair
		1	9.1	B5	2-2-2	" 2 Hd Be MWC 189	#8 9039 9049 15 (very faint)
0h 00m W	-01 32	1	"		6	" 1	" 9051 9060 9 faint
2h 00m W	25 03	1	9.01	G2 V	6	" 2 vdB S.B.	" 9064 9074 10 faint (guiding)
					8/6	" 8	Cal → r

NB. ○ PH + 7 103aC's (small & 1ET !!)

PH 2 } Contains hour II=0

PH 3 } For use by Stephen Thomas only!

Need new Guiding-T Pointing

Date Sept-Nov / 1900 / 03 Observer H2 - HV Julian Day 2437259.5

238 40 34.2 3638.4

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.
25546	BD+49°958	03 24.7	49 33	I-12½	Baked IIaO	.002	48	0021	0221
25547	"	03 24.7	49 33					0225	0421

ome Temp.....

ocus..... Some

ome Temp.....

Transparency Conditions Clearing at n. Night.

our Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
23 6 W	49 44	0	9.1	Fo	2-2-2	Set. 2 ∝ Pers. #95B #9 9084 7129 45	fair
0-30	47 46	2	8.6	A4	2-2-2	" 8½' " 931 " 9132 9156 26	fine.
					3/6	+ 5'	OK
						IBM Tape and TL.O	
						+ 9 103.0 2x3'	
						Sky very poor to East due Storm Belt.	
				Nov. 21		MC SC ME +41.3 -19.7 -3.5	

Date Mon Tue Wed 21-22/60 **Observer** Br – Ki **Julian Day** 2437 260.5
239 41 12.6 3639.6

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P
25548	BD +60° 2380	22 15.6	60° 16'	12"	IIa-O	.008	11.0°C	18:12	19:08	
25549	TB 521	22 18 5	55° 08'	12"	IIaO	.008	11.0°C	19:22	20:30	
	Focus Test	OTB								
	Visitors from McMaster Physics Club shown telescope									
25550	~~BD +48°~~ 943	03 24 8	~~48°~~ 25'	12"	IIa O	.008	8.5°C	22:30	2239	
25551	BD +45° 907	03 18 0	46° 55'	12"	"	"	8.3°C	23:01	23.10	
25552	BD +48 909	03 17 2	48° 58'	"	"	"	8.3°C	23:14	23.32	
25553	BD 48 897	03 16 0	49° 03'	"	"	"	8.3°C	23:38	00:02	
25554	BD 48° 903	03 16.6	49° 16'	"	"	"	8.3°C	0014	00 24	
25555	51 723	03 15.3	51 18	"	"	"	"	0042	03 16	
	Focus Test	OTB								

Dome Temp. 43°

Focus Fixed

Dome Temp.

Transparency Conditions Thin haze some Ci & ACu

very wobbly image after 01h also intermittent clouds clouds 02h 45m clear after 03h 30m some haze

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
4 35m W	58° 44'	1	9.43	B_2 III	3-3-3	Set 2 OB prog	Seeing 9 9160 9210 50
55m W	55° 26'	1	10.55	O5	3-6	Set 8 "	Seeing 10 9213 53 40
					12/9	Set 5	partly cloud interfering. clouded out 20.30
	7:20 pm	to 10:00 pm		Reopened		at 22:10	
1h 04E	42° 37'	0	6.5	B9	3-3-3	Set 2 x Per (V₀ 965)	Seeing 7 9257 9263 6
0 26E	49° 07'	1	8.2	A	3-3?	Set 5 x Per (V₀ 639)	Seeing 8 9267 9270 65
0 02E	49° 15'	1	8.4	A4	3-3-3	Set #2 x Per (V₀ 651)	Seeing 7 9271 9276 5
0 29W	49° 15'	0+	8.6	A0	3-3-3	Set 6 x Per (V₀ 554)	Seeing 7 9277 9282 5
0 51W	48° 27'	0	6.8	B9	3-3-3	Set 2½ x Per (V 581)	Seeing 7 9283 9288 5
3 45W	+51° 30'	0	7.0	A_3	3-3-3 10/8	set 7 x Per #522	Seeing 9 9291 9336 45
						IPH IIa, baker + 7 II₀ Orbs	
		MC	SC	ME	S		
	Nov. 23	+43.0	-20.0	-3.0	+20m 54.2	H on M	

197

Wed-Thu Nov 23-24

Date ~~Tues-Wed 19, Nov 22-23~~ Observer Wn Julian Day 2437261.5

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	
Focus	Test OTB									
25555F1	Set	Focus								
	-1/2	15.50	20/16-							
Ha Oxthin	1	15.48								
	2 1/2	15.46								
LHD-C	4	15.44	plate broken							
	5 1/2	15.42								
	7	15.40								
	8 1/2	15.38								
	10	15.36								
1061-122	λ Lupi	22 08.1	+58 55	4500-3700Å	x1	.020	6/2	18:20	18:23	
1062-122	HR 8752	22 55.9	+56 25	4500-3700Å	x1	.020	6/4	18:55	19:08	
1063-122	HD 224404	23 36.1	+77 24	4500-3700Å	x1	.020	5/11	19:27	19:40	
1064-122	ω And	0h 11.9'	+38° 08'	4500-3700Å	x1	0.20	5/5	20:06	20:19	
1065-122	φ [illegible]	1h 13.5	+49° 42	4500-3700Å		.020	6/3	20:39	20:49	

Time Temp.....

Focus.....

Time Temp.....

Transparency Conditions .....

nding Time E.S.T.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality

199

'60

Date Wed Thu Nov 23-24 Observer Wh Ki, Hy Julian Day 2437262.5

241 42 32.9 3641.8

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.
1066-122	η Cas	0 43.0	+57 17	4500-3900	X1	.020	5/4	21:09	21:21
1068-122	β Cas	0 06.4	+58 56	[illegible]	X1	.020	5/4	21:36	21:47
1068-122	[illegible]	[illegible]	20 19	[illegible]	X1	.020	5/2	22:17	22:28
1069-122	α Ari	2 01.5	22°59	[illegible]	X1	.020	5/2	22:42	22:53
1070-122	HD 19026-7	[illegible] 071	6.18	[illegible]	[illegible]	[illegible]	6/5	23:06	23:31
1071-122	HD 21791-2	3 25 [illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	0:15
25556	BD 47 542	03 23.6	47 19	12½	IIaOB	.008	07.1°C	00 30	02 10
	[redacted]								
	Tohs Tint								

Time Temp. 53°F

Focus FIXED

Time Temp.

Transparency Conditions clear. at 01h50

exposure meter refuses to count any more ?? closed out at 02h45m
it will not even count on a bright star !? OK Fully

Ending Time E.S.T.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS			Quality
01:21							2" [illegible]			
2:31				6.70	[illegible]		2" [illegible]			
							2" [illegible]			
02:10	2 40W	+47° 28'	0-1	8.7	A0	3-3-3	at 2½ [illegible]	Jan 9	{9348 93	
						8B 10/8	H and M.			
		MC	SC	ME	S					
	Nov. 25	+45.8	-20.2	-3.3	+20m54.0					
							4 H ∘ U B + 3 H (Combd W H ∘ C B			
							+ 8? 10 3 a ⊙ small size.			

201

Date Fri/Sat Nov 25/26 '60 **Observer** VCS **Julian Day** 2437264.5

2436357.8

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.
25557	HD190658	20h00.8	+15°13'	12"	IIaOb	008	08	18h15	19h05m
25558	HD4336	0h40m7	+39°53'	12"	IIaOb	008	08	19h20m	20h07m
25559	HD 3396	0h31.8	+42°37'	12"	IIaOb	008	08	20h14m	20h45m
25560	HD 3683	0h34.5	+42°17'	12"	IIaOb	008	08	20h50m	21h34m
25561	HD 4273	0h39.6	+42°55'	12"	IIaOb	008	09	21h35m	22h21m
[redacted]	Trans Test								

25561-F1

Brass plate holder — Schmidt spectrograph

slit 0.008

focus 12.69

Temp = 8°C

Set	Focus
-½	15.50
1	15.48
2½	15.46
4	15.44
5½	15.42
7	15.40
8½	15.38
10	15.36

all Cu-1

ne Temp.... 45°

us.....

ne Temp.....

Transparency Conditions Cirro Cumu (Max)
Clouded out 12h 21m

Ending Time E.S.T.	r Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
1 05"	1 C 5m W	+15°20'	0-1	8 0	gM2	3+5+3	vaB SB. = HR 7680	S/603-430
0 17"	31m E	+40° 11'	1	8 7	A0	3+3+3	vaB And = BD +39°176	S/432 -446 SeT 2
0 45"	12m W	+42°56'	1	8 2	A0	3+3+3	vaB And = BD+42°119	S/446-60 SeT 8
1 34"	55 W	+42°35'	1	8 6	A3	3+3+3	vaB And = BD +42°137	S/61 -75 SeT 2
2 1"	42 W	+43°13'	1	8 5	A3	3+3+	vaB And = BD +42°159	S/75 - 91 SeT 5

	MC	SC	ME	S
Nov. 28	+49.0	-20.0	-1.0	+20m 54.2
" 30	+51.0	-19.7	-0.8	+20m 53.8
Dec. 2	+53.0	-19.3	0.0	+20m 54.1

2PH II.U.
2Hours-box

203

all dups F2 F1

Date Sat-Sun Dec 3-4/60 **Observer** Kod **Julian Day** 2437272.5

251 50 17.3 3652.3

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.
25561	SZ Psc	23 08.3	+2°08	I-25	IIa-D	008	+3.3	19 00	21 46
	Focus	Test	30/24	OT 13		"		"	"
25563A	FU Psc #505 HS 0843	03 24.8	+8 25	I-25	"	"		22 01	22 15
25563B	"	"	"	"	"	"	3.2	22 14	22 22
25564	BD +8° 607 #638	03 18.0	48 55	"	"	"	3.2	22 34	23 31
	~~HD 03583~~	~~07 54.3~~	29 31	"	"	"		00 31	

25564 F2 PHH 3:14

T = 3.0 Tot mol 15:28

0	15.20
2½	15.18
5	15.16
7½	15.14
10	15.12

Int

25564-F1

T=06°C PH #1 30/24 OT 8

0	15.32
2½	.30
5	.28
7½	.26
10	.24

Subtract Thermal Value — .013 in Band

Changed to I-25

ime Temp.....
cus 15.27
ime Temp.....

I-12 was
Yoms 12.69
Tilt 20.35

I-25 set
Yoms 15.27 (4°C)
Tilt 23.15.

Transparency Conditions very poor

Ending Time E.S.T.	ur Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
	W 3 08	+ 2° 25'	1-1	5.7	G	4-4-6	Set 1 Hd Bin.	Good
			3	6.5	By	4-8	Set 2	fair
	E 33m	48 35	3			6-4	" 5	fair
	W 43m	49 04	3	8.2	A	4-4-4	" 9	fair
				7.7	G7	4-	" 1 Clouded out. Sky thick at 03.00 Closed. 2 P.H.s loaded with baked IIAOs, +12.	

	MC	SC	ME	S
Dec. 5	+57.0	-18.1	+0.3	+20m54.1
" 7	+59.7	-18.2	+0.5	+20m53.0
" 9	+62.5	-17.2	+1.5	+20m53.2

Why are Yoms not showing fields? [illegible]

Notes: Fri Nov 7/8 Opened up, clouded out immediately.
Temp. +15° F. 3PH +11 (total IIAOs) IMS.

Date Jul - Sep 1900 Observer I. — Ki Julian Day 2437279.5

258 56 47.8 3660.3

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.
25585	SE Pac.	23.285	+2°58'	I-25	IIa O hyfd	.012	-4.8C	15 30	21 50
	Focus Test							UT 3.	
25566	BD +49° 876	03 06.8	+49 15'	I-25	IIa O hyfd	.008	-4.4°C	22 16	23 20
25567	BD +49° 953	03 24.0	+49°23'	I-25	IIa O hyfd	.008	-4.5°C	23 04	0103
	Foto Test							UT3	

Dome Temp.

Focus 15.09

Dome Temp.

Transparency Conditions Good except for haze

206

exceptionally excellent water at 20°00"
Mag -2 bright green color
trail) sample for 5 min.

Ending Time E.S.T.	Bar Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
	W 3 40	+2°29'	0	8.7	G5	4-4-4	Set 5 (almost [illegible] 9938.	weak
						30/24	Set 9½	ok.
	W 1 10	+49°24'	0	7.2	B9	4-4-4	Set 2 α Pers Cluster Sims 7 {9944 9959	good
	0245	+48°03'	-1	7.2	A5	4-4-	Set 8 α Pers Cluster Sims 7 {9961 9976	good
						30/24		ok center

seeing terrible; haze & clouds

1PH loaded + 10° I.O below
Ln M.

	MC	SC	ME	S
Dec. 12	+66.8	-16.7	-1.0	+20m 49.4

207

Date Mon/Tue Dec 12/13 1960 **Observer** Br.-Ki **Julian Day**

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.	Hour Angle End
25568	~~62 Psc~~	23 08-3	+2° 08'	25"	103a-O	012	-11.5°C				
25568	~~MWC 82~~ HD 26420	~~09 06.7~~	~~+41 52~~	~~25"~~	~~IIaO~~ B	~~008~~	-14°C	OD 39			

plate broken (no spectrum)

Dome Temp. +06°F

Focus 15-01

Dome Temp. -12°F @ 01ʰ30 +4° +1° at 20:00.

Transparency Conditions occasional broken overcloud after 00ʰ30

208

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
	~~+02° 40'~~	-0	8.7	G5		~~Set 2~~ Set 2	
						Snow - Blowing & falling - Very windy.	
						PH #1 - loaded with II a - 0 baked.	
						PH # 2 Loaded with 103a - 0.	
						Still windy with snow flurries at 2113.0	
	+4150	-1	7+	B_3 N_2	4	~~Hd-Bc at 2½~~ 2m 8 {9953	
						seeing terrible high wind sprung up @ 01ʰ20ᵐ - telescope + dome shaking closed up at 01ʰ40	
						PH#1 reloaded with II a-0-B	
						PH#2 Reloaded with 103a	
						H. M.	

	MC	SC	ME	ζ
Dec. 14	+69.5	-16.6	-3.0	+20ᵐ 53.1
Dec. 16	+72.0	-16.9	+1.0	
Dec. 19	+77.0	-17.1	+5.0	

209

Date Dec 19/20 1960 Mon/Tue Observer Br - [redacted] Julian Day 2437288.5

268 06 25.3 3667.6

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.
25568	HD 219.3 ε Psc	23h 08.3	+2° 8'	I 25	103a-O	012	-2.3°C	17:36	21:18
	Focus Test	DTE							
25569	BD 45° 924	03 21.4	49° 03'	I 25	IIaO-b	008	-2.2°C	21:34	23:12
	Focus Test	DTE							

Dome Temp. 26°

Focus 15 13

Dome Temp.

Transparency Conditions Clear but Cloud at horizons. 210
Hazy by 2100 esp. on W.
Some patchy cirrus by 22:30
Solid by 23.10

Ending Time E.S.T.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
8	$13^h 43^m$ W	+ 2° 26′	0-0+	8.7	G5	4-4-	Set 2 Hd Binary. vble refrn → jumpy image. Zoom Sens 9 {9990 0190	fine
						12/9	Set 8	
12	$1^h 24^m$ W	49° 13′	0+1	8 5	A3	6-	Set 2 & Per 802. Sens 7 {0192	too weak
						18/14	~~Set 8~~ Clouded out with 60 comps only.	
							3PH loaded with NaO -b in N pur.	
							MC SC ME	
							Dec 21 +80.0 -16.7 +1.5	

211

WED-

Date DEC 21/22 Observer WM-DH Ki Julian Day 2.43 29 0.5

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.
1072-123	θ Andromedae	0 11 9	38 °5	4520-3940	82		5/6	18:52	19:18
1073-123	HD 9352-3	1 27.0	47 49	4520-3740	82	1010	6/5-	19:26	19.56
1074-123	BD 61-412	02 19.6	+61 49	5150-4800	-4		6/7P	22:15	
1075-123	BD 61-412	02 19.6	+61 49	3850-3.00	-4			22 49	
1076-123	BD 61 412	02 19.6	+61 49	510-3[illegible]	-4			23 30	
~~2570~~	HD 36410	05 19.4	-00 59	1-25		808		00 40	

Dome Temp. 12°

Focus

Dome Temp.

Transparency Conditions Clear

clouded out @ 01h 20m

Ending Time E.S.T.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
9 ?				4.6	A. U		2"/min 1A/sec Set on BD+61:412	
2 B				6.0	Ko Ko		Checks 20:30	
							2"/min 1A/sec	
							" " * #4 3603 - 5100	
				5.9	Ko		Lott (40)	
		Dec Motion			peculiar.		(seems to slip)	
					H on M.			

Date DEC 22/23 (1925) Observer McR - HS Julian Day 2437291.5

271 09 49.0 3668.2

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	
25570	MWC 68 HD 21650	03 24.6	+41 25	I-25	II-aO-f	.008	-10	21 45	23 31	
25571	MWC 145 HD 32202	5 31.7	+21 05	"	"	"	-10.5	23 16	23 49	
25572	MWC 140 HD 45314	06 21.6	14 57	"	"	"	-11°	00 12	02 34	
	None Det.		07 B							

Time Temp. 7

Focus 15.08

Time Temp.

Transparency Conditions HAZY CLOUDS IN SOUTH / CLEAR OVERHEAD & IN NORTH

Ending Time E.S.T.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
33.	5 3 W	41 33	0	7.2	B, NE	6-6-6	Seq 7 Set 3 Be Prog 263 298	
3 41		21 08	0	5.0	B3c	15	Seq 4 Set 7 " 3 south.	
023+	2 59 W	14 57	00	7.1	B ne	6·6·6	Set 2 " #7 0292 0309	
						20/15	" 8	
							1 PH + 2 Boxes II a O b	
							1 " 103 a O	
							0400 Clouds	
							COUNTER COUNTS IRREGULARLY IE. NOT ON EVERY FIRING OF INTEGRATOR	

215

Date Dec 23/24 Tr/int '60 Observer [illegible] - MR Julian Day 2437292.5

272 10 57.2 3668.3

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	
25573	11 13 21 742	3 [illegible]	+28° 23'	25"	IIa-O	008	-11°C	19h 10m	19h 53m	
25574	BD +47 752	3h 08.8	+47 43	25"	"	"	"	20h 20m	23h 07m	
25575	+44° 664	3h 11.6	+45° 17'	25"	"	"	"	23h 37m	01:03	
25576	HD 50083 (Anc 126)	6 46.5	+05 13	25"	"	" ✓	" ✓	01:13	02:06	
25577	HD 69830	8 13.7	-12 18	"	"	"	"	02:23	03:17	
25578	HD 83186	9 31.5	+72 12	"	"	"	"	03:29	04:48	
25579	HD 91948	10 31.9	+60 38	"	"	"	"	05:02	05:44	
25580	HD 103095	11 47.2	+38 26	"	"	"	"	05:52	06:30	
25581	HD 91948	10 31.9	+60 38	"	"	"	"	06:36	07:12	
	Target Trans!									

Time Temp. 3°F

Focus 1502 ✓

Time Temp. 2° F

Transparency Conditions Fair

Ending Time E.S.T.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
	34" E	24°33'	0	7.29	S5e	6+6	SB Northcott 318–334 F to F ?	f
	41" W	47°53'	0	8.1	A0	6+6+6	set 2 d Pe Prism — 307 310–320	f
	40 W	1°48'	0	7.6	A0	3+7+7	set 1 d Pe Prism — 323 330–346	f
	10 W	+5 08	0	6.8	B2e	6+6+6	set 5 Be Sun 7: 397–413	f
	54 W	−12 27	0	6.76	G8V	6+6+6	set 2 Se " 414–438 1), 2)	f
	05 W	+71 57	1	8.00	F9I	6+6+6	set 8 Se " 439–463	f
	02 W	+60 19	1+	7.37	F8	6+6+6	set 2 SB, N " 464–488 3)	f
	33 W	+38 00	2	7.3	G5	6+6+6	set 8 Std. Vel. " 489–513	f
	30 W	+60 19	1	7.37	F8	6+6+6	set 5 SB, N 1st. " 514–526	f

(2 PH – Eagle plus 2 Eagle Bl in Neal Lens shutter, then box of Ilford + box of Ansco)

Comets O.A.:

1) Spotter stiff – 1 drum

2) Lowered spring from Dec shaft

3) Spotter warned off – 2 times

Date Dec 26/27 2/on Observer M°R-Ki Julian Day 2437295.5

275.14 22.2 3668.3

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.
25582	MWC 107 HD 34921	05 15.8	+37 35	J.25	IIaO-f	.019	-1	2305	03°45ᵐ
		Form Tad			OTB.				

One Temp. 11°F

Transparency Conditions fair [WINDY]

Plus 15.12 Re-formed at 21h/0 — counts much faster.

One Temp.

Ending Time E.S.T.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
15 5	of 3/	-27 38	-0	7·4	30 me	6-6-6	Scans 8 Sets Be Prog Started out at 3°45m {5 37 / 5 34 (10) 22 counts	
						20/15		
				H on M.			LATE BEGINNING FORGOT to find Dec from finder COUNTER NOT OIL cannot be preset for desired no. of counts. (micro-switch shot ?)	15

Date Dec 27/28 TUES Observer MR / DH / McR — Hv Julian Day 2437296.5

276 15 30.5 3668.4

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.
25583	+50° 441 738	03 13.1	+50 37	I-25	IIa-O	.005	-10°	18 18	19 06
1077-124	BD +61 411	02 19.0	+61 32	3 [illegible] 4755-5330	4-6-7	30			
1078-124	Sky	02 19.0	+61 17	4550-3600					
1079-124	Dr. C.	02 18.5-20.5	+61 48'	Al Mgo	4-6-6	130			
		"	"	12		130			
1080-124	BD +61 416	02 20.6	+61 45	[illegible]	3-6-2	132			
25584	+48° 943	03 24.8	48 25	I-25	IIa-[illegible]	.005	-10°	22 28	22 46
25585*	[illegible]	3 24.6	[illegible] 33	[illegible]	[illegible]	[illegible]	[illegible]	23 01	23 06
25586	+48° 943	[illegible]	[illegible]	"	"	"		23 51	24 07

* 25585 is behind to be

BD 47° 843 03 23.5 +47 39 " " [illegible] 23 [illegible] 23 [illegible]

Time Temp. 10°F

Transparency Conditions Clear

Focus 15.03

Time Temp.

Ending Time E.S.T.	Hour Angle 2nd	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
9 05	04 E	50 49	O	7.0	B9	6-6-6	Set 3 Sens 7 ∝ Per Cluster [15 563 counts] 2"/min; 1A/sec Set 2.5 N Set 30' Sel 1072-124 2"/min No Sens RA Drift at fixed Sec C.4960 Test on sky, and on BD +61°916	
[illegible]	46 35	1+	[illegible]	B9	6-6-6	Set 3 Sens 7 ∝ Per [15 [illegible]]		
[illegible]	47 48	2	[illegible]	B9	[illegible]	Set 6 Sens 7 wrong star [15 "]		
[illegible]	48 28	O	[illegible]	15?	6.12	Set 9 Sens 7 ∝ Pers ±7 3596 - 0611		
						0145 Cards.		
[illegible]	47 48	2	48	G	6-6-6	set 6 sens 7 15 ch		

Date Wed Dec 28-29/60 Observer Ad- Julian Day 2437297.5

277 16 38.9 3668.3

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.
25587	37 Psc	23 08 3	+2 08	I-25	103a-O	012	-8.0	18 45	19 21
25588	DD-51 728	3 16.5	51 25	"	"	008	-8.0	20 19	21 57
~~25588~~	~~DD-51 728~~	~~3 12.6~~	~~48~~						
25589	BD 49 900	3 11.7	49 26	"	"	"	-8.0	21 16	22 20
25590	BD 49 830	3 20.5	47 57	"	"	"	-7.9	22 28	23 26
Focus	Dist.								

...e Temp. 18 F

...s 15.05

...e Temp.

Transparency Conditions

Heat in clock gear train, head beam bowed 1/3

Ending Time E.S.T.	Angle and	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
	21W	+2 28	2	8.7	G5	3-3.3	Hd 2d Bm nt 2. zeros 9 6.75 781	good
	02E	51 35	2	7.7	Ao	4-4½	x 12 cc nt 2 Haze dim clouds star gone at 19.20 zeros 7 * 782 796	
	16W	49 38	2	7.3	Ao	4-4.4	α 12 cc nt 6 " 7 * 797 812	
	~~48W~~ 14W	48 07	1	7.9	Ao	4-8	α Bm cc nt 2 Clouds " 7 814 ~~819~~ 822	
				NT3		3½/5		

Closing at 23 hrs.

	MC	SC	ME
Dec 30	+96.5	-15.2	-1.7
Jan 3	+1m 44.0	-14.0	+0.8
" 4	+1m 46.0	-13.4	+1.2
" 6	+1m 49.0	-12.0	+1.0

* Counter trouble after 8 o'clock

Date Sun Mon Jan 8-9 1961 **Observer** DH = HC **Julian Day** 2437368.5

288 30 02.4 3668.9

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.
25591	HD 27532	04h 15m.7	+29° 25'	I-25	IIa-06	008	-5.4	20:54	0154
2	Non Det		078		10/12				

ne Temp. +16°F

Transparency Conditions poor at start

" in end

us 15.25 - 0.16 = 15.09

ne Temp.

Ending Time E.S.T.	r Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
	131W	+21°30'	000	7.7	A2	6-6 6	Set 3 KA 6×6 Sens 8 994 counts – 1024	Good
							" 8	
							0200 - 0300	
							Cloud, Very windy	
			MC		SC	ME		
		Jan. 9	+1m54.0		-10.4	+2.0		
							Note: At start of night – IPH ++ showers during spotting I spoiled one of the 4 DH	

Date Tue-Wed 1961 Jan 10-11 Observer TM Julian Day 2437310.5

290 32 20.0 3668.7

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.
25592	BD+47°546	2h34m.6	+47°33'	I-25	IIa-O	.008	-3.5°C	21:03	21:29
25593	BD+47°548	3h 21.6	+49° 37'	"	"	"	-3.0°C	21:33	22:54

Time Temp. +25°F

Transparency Conditions hazy – clearing about 8 PM

Status 15:28 − :16 = 15:12 Found focus at 15.28

Time Temp.

226

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
5h 57m N	+7° 41′	1	6.6	B9	6-6-6	2CT2 2Rec Thin Hyi – invisible Runs 7: 1055-1073	fine
5h 35m N	49° 48′	1	8.0	A0	6-6-6	3CT8 " clouds - " 1079-1087	Smoke (grinding
						2 PH + 1 Ext IIa-O Rec'd	
		Jan 11	MC +1m 58.0		SC −8.8	ME +4.6	

Date Thurs Jan 12-13/61 Observer Ed - H Julian Day 2437312.5
292 34 375 3668.6

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.
25594	#375 BD 47 632	03 20	47 25	I-2	EIIaO (6)	0.8	-2.2	22 25	23 03
25595	#217 BD-49 876	03 06.8	49 .5	"	"	"	2	23 47	0147
25596	HD 103095	11 47.2	3826	"	"	11	-2	0346	0428
			1950						

Temp. 28F

Focus 15.2

Dome Temp. [illegible]

Transparency Conditions Cloudy until 20.30

Cl. & Haze 2000 after Midnight

Till 3.30

Ending Time E.S.T.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
	1249	47 37	1	7.1	A_0	4-4-4	Set 2 α Per Cluster. rem 7 1094 1109.	fine
							Tried to see Series B - Couldn't	
	47W	47 19	1-2	7.2	B9	4-4-4	" 2 α Per Cl. As For West Pleiades rem 7 1110 1118	good
	10E	37 57	1	7.3	G5	4-8	" 2 STD VEL #7 1124 1142	fair
						2 9/6	" 8 0430 Many Clouds	Color.
							3 PH PS (To 0 lb)	
							MC SC ME	
				Jan. 13			+2m01.5 -7.2 +2.5	

Date Sept 14-15 June, 1961 Observer [illegible] — KI Julian Day 2437 314.5
294 36 54.4 3668.1

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.
25597	BD 48°[illegible]	03h 19.1	+48° 03'	I-25	IIaO	.003	+3.5°C	18:09	18h 52
25598	48° 907	03h 22.4	+48° 55'	I-25	IIaO	.008	+3°C	20.07	21h 39
25599	48° 903	03h 22.7	48° 53'	I-25	IIaO	.008	+3.1C	21.47	22 47
25600	BD 47° [illegible]	03 [illegible]	47 39	"	"	"		22 53	01 40
25601	HD 60299	07h 28.7	+25° 09	"	"	"	"	01 49	03 58
	E 7.	07 [illegible]							

230

ne Temp. 30 F

ous. 15:19

ne Temp. 25°F

Transparency Conditions Fair

Seeing determined after 03h00

Clock 04h00

Ending Time E.S.T.	r Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS			Quality
1:52	1h 12m E	48° 15'	1	7.4	A0	4-4-4	Set 5	α Per Cl.	1145 1161	fair
2:02	1h 36m W	~19° 07'	1	7.9	A	4-4-4	Set 5	α Per Cl	1165 1180	fair
2:17	2h 35m	49 05	1-0	7.4	A0	4-4-4	Set 5	α Per Cl	1182 1197	fair
2:40	5h 25m	47 49	0	7.9	A0	4-4-4	" 5	α Per Cl.	1195 1230	good
03:58	3h 37m	+25° 02	0	8.01	G2 V	4-4-4	Set 5	(vdB Sp 2:)	1232 1250	fair
						20/15				fair DHC

2 PM B200 + —

+ on M.

	MC	SC	ME
Jan. 16	+2m06.0	−5.0	+5.0

231

Date Jan 16/17 1961 Mo/Tue Observer Br - Ki Julian Day 2437316.5

296 39 10.1 3667.1

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.
25602	Focus Test	OTB	—	I 12	II aO$_2$	.008	-2.0°C	—	—
	BD +47° 809	03 14 9	47° 36'	I-12	"	"	-2.0°C	18:30	19:14
	Focus Test	OTB	—	"	"	"	-1.8	—	—
25603	BD 48° 909	03 18 2	48° 68'	"	"	"	-1.8	19 44	.41 8
	Focus Test	OTB	—	"	"	"	-1.9	—	—
25604	BD +49° 877	03 07 2	50° 05'	"	"	"	-1.9	21:02	22 [illegible]
	Focus Test	OTB	—	"	"	"	-1.9	—	—
25605	BD +47° 1	03 [illegible]	-02° 10'	"	"	"	-1.9	23:16	00 15
25606	BD +47° 813	03 [illegible]	+45 3	—	—	—	—	—	
			Clear	aO	-1	00	2		
				aO	-1			01:30	

Focus test 25501F, indicates correct focus should be 12.56. 232

ne Temp. 31°F — Transparency Conditions Some clouds

ns 12.56 (I·12½) Changed to (chr) 12½" Camera 25" was Focus 15.19 12½ " F 12.69

ne Temp. Field 23.18 T 20.35

Ending Time E.S.T.	r Angle 2nd	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
–	–	–	–	–	–	10/8	Set 0.	
	4 38" E	47° 46'	0	83	A0	3-3-3	Set 4 α Per. 507. (14) sens 8 {1252 1266	
–	–	–	–	–	–	10/8	Set 10.	
	4 59" W	49° 09'	0+	84	A4	3-3-3	Set 2 α Per 651. white hazy. (14) sens 8 {1272 1286	
–	–	–	–	–	–	10/8	Set 8.	
	1 17" W	50° 12'	0+	90	F5	3-3-3	Set 2 α Per 225 Very hazy. (45) sens 9 {1287 1302	
–	–	–	–	–	–	10/8	Set 2	
		-02 00	0+	869	K2 III	3-3-	Set 2 Se-GHV Ronan 210 (45) sens 9 {1341 1350	
			0	4.2	G		set 2 {13	
			MC		SC	ME	IFH + 1½ m II no Cal.	
		Jan. 18	+2m09.0		-3.4	-1.3		
							H. M.	

Date..... Observer..... Julian Day.....

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End
25605-P1										
Tues Jan 17/1961										
PH #4 T = -6.5°C										
12.63	net -1									
.62	+½									
.61	+2									
.60	+3½									
.59	+5									
.58	+6½									
.57	+8									
.56	+10½									

BEST

also min

ome Temp.................

Transparency Conditions ....

ocus.................................

ome Temp...................

nding Time E.S.T.	our Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality

See next page for Jan 19-20

235

1961

Date Jan 19-20 Thur-Fri **Observer** DH — Hr **Julian Day** 2437319.5

299 42 29.3 3664.8

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.
		1950							
1081 - 125	HD47105 δ Gem	06 34.8	+16 27	a) 4900	-4500	5-4	30		2153
	"	"	"	b) 4500	- 3600	5-2		21:58	2215
		1900							
1082 - 125	BD+61411	02 19.0	+61 32	a) 3600	- 4000	4-6-5	30		
	"	"	"	b) 3600	- 4150	5-6-6			
1083 - 125	HD47105 δ Gem	06 34.8	+16 27	3600	- 4300*	5-2			2346
								00 [illegible]	
1084 - 125	δ Gem	"	"	36m	- 41[illegible]	4-6-5	30	00 14	
1085 - 126	HD65583	07 54.3	29 31	[illegible]	[illegible]	5-8	-12.5	01 15	[illegible]
	δ Gem	[illegible]	07 [illegible]						

me Temp. +6°F

cus

me Temp. −2°F

Transparency Conditions Partly cloudy, esp in south
Aurora? 2030, 2200

Ending Time E.S.T.	ur Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
2153							2"/min 1A/sec	
2213							" " ~~Set 2.5 N of +61 41~~	
	~~4 HSW~~						" " Set 2.5 N of +61 41	
	4 15 W						" " " " " "	
134							" " * Stop when Burn runs out	
							of int - 4 19?	
							" " Set 2=11 - 1 Jet	
1459	4 HAW	+29 19	000	7.9	G-7	3-3-3	Set 2 STC 1 EL #9 1411 1938	Good
						10/8	" "	OK
							1 Pt. +11	
							Heat Shield all and half.	
							Seeing has [illegible]	
							New batt for Flight!!	

	MC	SC	ME
Jan. 20	+2m 12.0	−1.5	−2.5

Date Sun-Mon Jan 22-23 1921 **Observer** DH - L **Julian Day** 2437322.5

302 45 40.8 3661.8

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.
1085-126	BD +61 411	02 19.0	+61 32	3600 4500 ×1	5-6-5	30		19 41	
1086-126	Sky N of 1085	02 19.0	+63 44	4500 3600	5-6-5	30		20 22	
1087-126	Sky S of 1085	02 19.0	+57 32	4500 3600 ×2	5-6-5	30		21 01	
1088-126	" "	"	"	4750-5000	"	"		21 50	
1089-126	BD +61 411	02 19.0	+61 32	5100-5400 ×2				22 04	
1090-126	"	"	"	4500 3600				22 23	
				3600 4000				22 41	
1091-126	HD 9218 W 6m	1950 1° 34'	1950 +1° 27'	3600-5000	0-6-5	"		23 15	
25607	HD 9218B	10 32 13	-01 13	5 4m 1 12½	Tri-Ac-1	30" .002	-14.0	00 45	01 25
25608	" D6950	11 04 7	39 26	"	"	"	-14.1	01 45	05 15
25609	" 130928	14 16.0	15 18	"	"	"	-14.3	05 23	06 49
	Focus Test				OTB				

ne Temp. +7°F

Transparency Conditions Overall light haze
Clouds 20'25

us.....

ne Temp. −2. F

Ending Time E.S.T.	r Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
							2"/min 1 A/sec Set 2.5 N of Hz 411	
							" " Same RA, but 11 deg Stop drive	
	33W Set						" " " " " 45°+8'(N) Hz	
							" " " " "	
							" " Set 2's N of Hz	
							" " " "	
							" " " "	
							2"/min 1 A/sec HR Start 0315W	
01 25	22E	−01 33	0	7.4	K1	3-3-3	Stan. Vel. Jet 8 1555	
05 15	58W	39 03	0	10.08	G5	3-3-3	KAFS Pair " 10 1588	
06 45	07E	45 02	0-1	9.17	G5	3-3-3	" " " 9 1776	
						10/8		
			MC		SC	ME	1 PH Loaded + 8 Below El	
		Jan. 23	+2m	7.5	+0.7	0.0		
							02 hr Streaks to end and ~1/2 way to end of bottom Should be longer than 4 hrs, to clear 30 minutes	

25609-F1 -13.0°C
F = 12.63 10/8
Camera tracked clockwise
PH # 1

239

Date Jan 23/24 M.-/Tues. 1961 Observer Br - Ki Julian Day 2437323.5

303 46 42.6 3660.7

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.
25610	BD 48° 897	03h 16 0	49° 08'	12½	IIa-0	.03	-12.0°C	18:25	19:17
25611	BD 47° 608	03h 14 3	46° 09'	"	"	"	-12.0C	19:24	20.52
25612	BD 46° 905	03h 17.2	46° 53'	"	"	"	-12.0C	20:58	23:16
25613	HD 21537	03h 24.5	47° 57'	"	"	"	-12.0C	23:27	00:52
[illegible]									
25614	HD 65553	07 54.3	+27 31	"	"	"	"	00 [illegible]	01 00
25615	HD 94151	06 15 0	-02 54	"	"	"	"	01 15	01 [illegible]
25616	HD 89449	10 14.3	+19 51	"	"	"	"	01 25	01 [illegible]
	Focus Test							[illegible]	

...ne Temp. 9° F

...as fixed

...ne Temp.

Transparency Conditions Some haze & patchy cloud, [illegible] 20.

Thick haze by 01^h00
Clouds by 01 30

Ending Time E.S.T.	...r Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS		Quality
[illegible]	07 E	49° 15'	0-1	8.6	A0	3-3-3	Set 2 α Per 554	Series 9 {1859 1904} 45	
20.52	25 W	48° 18'	0-1	9.1	A8	3-3-3	Set 5 α Per 481	Series 9 {1906 1951} 45	
[illegible]	47 W	49° 05'	0	9.0	A0	3-3-3	Set 5 α Per 606 — Heavy Haze clear	Series 9 {1952 1997} 45	
[illegible]	55 W	47° 53'	0	7.7	G2	3-3-3	Set 5 Stat Veh	Series 8 {2000 2020} 20	
				~~7.7~~	~~G~~		~~Set 10 Stat Veh~~	~~Series {} 25~~	
	0 58 W	+29 18	1	7.9	G1	3-3-3	set 2 Stat Vel.	ser 8 {[illegible]} 25	
	3 01 W	-02 56	1	6.9	M1	4-5	set 6 " "	ser 7 {[illegible]} 8	
	2 16 W	+19 37	0	5.7	F5	4-5 9/5	set 2 " "	ser 5 {2061 2065}	

Clouded out at 01^h40

No IIa0 label at all !!

1 plate broken in loading.

241

Date Jan 24/25 Tue-Wed 1961 **Observer** DH vdB **Julian Day** 2437 324.5
304 47 43.3 3659.6

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.
* 1091 – 127	BD +61 411	02 19.0	+61 52	4750 5100	4-6-5	30		1850	1930
1092 – 127	M32	M50	+15°	3600 5150 ×2	3-6-5	30		20 42	
1093 – 127	HD 7105 Orion	6 34.8	+16 27	3600 5150	1-4-5	30		2224	2257
				(4250-5100				2259	2336

* This number was used on 1961 Jan. 22-23

e Temp. +2 °F

Transparency Conditions Good at Start

s

e Temp. -7 °F

Ending Time E.S.T.	Angle nd	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
1139							2"/min : A/sec On star	
							½"/min : A/sec through the curves	
2350	D 0.19W						½"/min : A/sec	
2354	S 1.0tW						" "	
							At 2350 closed up. Unfortunately I was unable to balance the spectrograph mirror (temp -15°C) so I called it a night and decided to stop at end of spectrophotometry work DH	
				MC	SC	ME		
	Jan	25		-9.5	+3.0	+1.3		
	"	27		-5.5	+5.0	0.0		

243

Date Nov 26/27/28 Fr/Sat '61 **Observer** VC **Julian Day** 2437327.5

307 50 38.8 3656.3

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.
25617	30 Aql 3°6/12	3h 23.6	+17°19'	12"	103aO	.008	+8	18h 51m	19h 48
25618	31 Aql 9°2/3	3h 24.0	+19°33'	12"	103aO	.008	-8	19h 48m	20h 20

ne Temp.... +10°F

Transparency Conditions ... Fair
Cirr. Strs 20°NW

ous.....

ne Temp.....

Ending Time E.S.T.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
	5°30'W	+7°30'	0	8.7	A0	2+1+2	dpw H 906	2054 - 2078
	5°55'W	42°35'	0	8.5	A5	1+	dpo H 921	2042 - clouds

1PH +3 1030

Add 12 = Sid. time plate was made.

245

Date Sat Jan 21/22/61 Observer Hd - Ki Julian Day 2437 328.5

308 51 35.1 3655.2

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	
25619	HD 26162	04h 03.3	+19 21	I12.5	103aO	.008	-11°C	22'52	23:15	
	"	"	"	"	"	"	-10.8	23:21	23:40	
	From			10/8	07E					
25620	HD 66441	07h 57.1	10° 3'	I12.5	IIaO	.008	-10.8	23.54	00:03.5	
	"	"	"	"	"	"	"	00104	00.08.5	
25621	HD 92588	10h 26.3	-01° 13'	IR.5	IIaO	.008	-10.5	00.26	00 54	
25622	HD 89449	10h 14.3	+14° 59'	I12.5	IaO	.008	-10.4	01:11	01:15	
"	"	"	"	"	"	"	"	01:18	01:21	
25623	HD 103095	11h 47.2	+38°26'	I11.5	IIIaO	.008	-10.0	01:33	01:43	

me Temp.... 8°F

Transparency Conditions ... Very poor

...us.....

me Temp.....

Fairly clear at 2100 - improving slowly.
Good 0000-0200, then clouds

...ding Time EST	...ur Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS		Quality
	W 3 26	19 30	0	6.9	K_1	4-4-4	set 1 Std Vel	2084 2088	
	W 3 40		"	"	"	4-2-2	set 5 "	2091	
							set 9 "		
	W 0:20	+2° 27	0	5.6	K_3	9s	set 1 Std. Vel	2093 2097	
	W 0:24	"	"	"	"	9s	set 5 "	2090 2108	
	W 1 28	-01° 31'	0	7.4	K_1	3-3-3	set 2 Std. Vel.	2101 2107	
	E 0:46	+19°46'		5.3	F_5	9 ave	set 2 Std. Vel.	2114 2116	
	E 0:40	"	"	"	"	9 ave	set 5 " "	2116 2118	NO SPECTRUM NO CLOUD
	E 1:46	+38° 12'	1	7.2	G_5	3-3-3	set 2 Std. Vel.	2128 2128	

	MC	SC	ME
Jan 30	0.0	+7.0	+3.2

Date Tue-Wed Jan 31 Feb 1/11 **Observer** TH DH MR — HC **Julian Day** 2437330.5

311 54 17.5 3652.0

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.
1094-128	IC 2149	05 48.9	+46 06	6-6	{5048-4770	30		23:16	23 21:
					(4770-5050			23:23	23 28
	Sky near 1094			6-6	Sky 5050			23:30	
					Sky 4770				
1095-128	IC 2149	05 48.9	+46 06	4-6	4770-4770	30		23:38	
				3-6	4770-4770			23 45	23 45
1096-128	IC 2149	05 48.9	+46 06	1-6	5050-4770	30		23 52	24 21

ne Temp. 5°F

Transparency Conditions .....

ius.....

ne Temp.....

Ending Time E.S.T.	r Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
23 21	1 55W						2"/min 1A/sec planetary nebulae	
							2"/min 1A/s	
	P 2 23							
							3 PTH BUILT-O	
							Clouds after Midnight	
							Closed at 01:15	
							FIXED 17" PHOT. (I THINK!)	
							vdB had troubles	
			MC	SC	ME			
		Feb. 1	+4.5	+8.9	+0.7			

Date Wed-Thur Feb-3 1971 Observer DH Ki Julian Day 2437332.5

312 55 09.5 3651.0

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.
1097-129	BD +57 594	02 25 6	+57 31	3-6-6 5-6-6	1) S7402+4688 2) S8 5060 +4738 x2	30		1855	1918
1098-129	BD +61 411	02 19.0	+61 32	4-6-6 4-6-6	S8 5060 x2 9[illegible]	30		1955	
1100-129	"	"	"	5-6-6	[illegible] x2	30		2051	2014
				6-6-6	4[illegible]	30		2040	2034
1101-129	λ Aurigae	5 12.1	+40.5	5-6	4[illegible]	30		2142	2148
1102-129	136 Tauri	5 43.9	12 37	5-5-5				2152	2227
1103-129	HD 34724-5	5 50 8	35 [illegible]	6-6				2232	2312
1104-129	HD 260984	5 [illegible]	9 31	6-5-5				2320	2357
25624	HD 92588	10 31.4	-01 13	10.5"	IIa-O	.006	-12C	0017	0040
25625	HD 89449	10 14.3	+19 57	"	"	"	"	0051	0058
25626	HD 65581	07 34.3	+21 31	"	"	"	"	0115	0305
	Feige Test								

Dome Temp. +2°F; -3°F → -5.0°F → −10°F Transparency Conditions good 250

Focus

Dome Temp. image unsteady 0h — thin cirrus at 03h20m

Ending Time E.S.T.	Bar Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
	0119W				2"/m.. 1A/S			
	0232W							
	0221W							
	0241W							
				4.>	2"/m 1A/Sec		GOT	
				4.3			R9T	
				7.7			11.5	
	0127 E	−01°33'	0-	7.4	K1	3-3-3	Std Vel. Set 2½ sens 7 {2197 2205	good
	0047 E	+19°40'	0-	5.3	F5	4-5	" " Set 7 (max) sens 5 {2207.14 22 1.14	fine
	0049 W	+29 21	0	7.7	G7	3-3-3 8/10	" " set 8"2 " 7 sens 8 {2215 2211	fine
								OK
	Dec slow motion upset above						1PH Bad Tail.	
	(Speed: hand wheel) ~11°/							

Date Thurs-Fri Feb 2/3 1961 Observer MS - HC Julian Day 2437333.5

313 56 00.5 3650.0

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.
25627	HD 44131	06 15 0	-02 54	I-12½	IIa-O Hg.08		-14.6 -14.7	21 38	22 02
25628	HD 65583	07 54.3	+29 31	"	"	"	-14.9 -15.2	22 17	22 57
25629	HD 66141	07 57.1	+07 36	"	"	"	-15.3 -15.5	23 27	23 37
	Focus Test								
					MC	SC	ME		
			Feb 3		+9.0	+11.5	+2.2		

ne Temp. 0°F Transparency Conditions Hazy

cus

ne Temp.

Ending Time E.S.T.	ur Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
2 12	19W	-2 53	0	6.5	M1	3-3-3	Sens. 7 set 3 Standard vel. 27.59/73	fair
2 37	25E	+29 18	0	7.9	G7	3-3-3	Sens. 8 set 8 " " 29.90/94	fair
3 39	14W	+2 26	0	5.5	K3	3-3-3	Sens 7 set 5 " "	fair
							set 0	OK
							Occ. Clouds	
							Spectrograph was turned on at 17:30 to warm up thermostat. Temperature recorded once before start and hourly after. 18:30 - 21:30 - Took some spectrophotometer. Had much trouble with sun in Norma Wonder. Lost about 1/2 hour in resetting properly. — H.A.	

Date Sat-Sun, Feb 4-5/61 Observer Hd — IKi Julian Day 2437335.5

315 57 39.4 3648.0

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.
25630	BD+48° 944	03h 24.9	+48° 15'	I 12	IIa O	.008	-5.2°C	20:19	20:54
25631	BD +49° 918	03h 17.9	+49° 59'	I 12	IIa O	.008	-5.2°C	21:09	23:30
25632	HD 65583	07h 54.3	+29° 31'	I 12	IIa O	.008	-5.4°C	23:30	23:48
25633	BD +45° 1153 For Tol	9h 46.7'	+45° 30'	I 12	IIa O	.008	-5.4°C	00:05	03 15
								OVR	

Dome Temp. 20°F → 18°F

Status Emit

Dome Temp.

Transparency Conditions fair

light cirrus 01ʰ — 01ʰ 45ᵐ
clouded out at 03ʰ 20ᵐ — 04ʰ = no tracks.

Ending Time E.S.T.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS		Quality
	2109	+48°25'	1	8.1	?	3-3-3	Set 3 "Tycho" Zone 8.	2310	fine
	4:45	+50°05'	1	9.1	FO	3-3-3	Set 5 " Zone 9	2324 2329 2374	fine (central)
	V 0 [illegible]	+29°19'	1	7.7	G7	3-3-3	Set 3 Std. U.L. Zone 6	2381 2407	fine
15	V 02 20	+45°12'	1-0	9.57	B3	3-3-3	Set 5 HAFS Zone 10	{2409 {2529 12	fine
						10/8	set 7½		OK

2PH finished B.L. II ser.
+ I ser finished.

Date Sun Mon Feb 5-6 /61 Observer DH – Ki' Julian Day 2437336.5

316 58 274 3647.0

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.
1104-130	BD+57 534	02 25.6	+57 31	3-6-6	C4930 Star 5E-4360 3	30		1915	1948
1105-134	BD+61 411	02 19.0	+61 32	5-6-6	SS 4360	30		1954	2011
	"	"	"	"	"	"		2014	2029

ne Temp. + 26° F

us. Fixed.

ne Temp.

Transparency Conditions Light cloud at start clearing into - good

Ending Time E.S.T.	r Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
12	0204W						2°/min 1 M/sec St.1 star, night sky	
2	0234W						2½ lbs α = +61 411 δ = +61 416	
2.1	0253W						" α = +61 411 δ = ½[61 416 −14] Chwb 2036	
							2 PH = Bmf	
							clouded at 12^h0D.	
							still cloudy at 01^h30 — not bad	

257

Date Mon Tue Feb 6/7 1961 **Observer** Br - Ki **Julian Day** 2437337.5

317 59 14.4 3646.0

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.
25634	BD 48 934	03 23.2	+48 11	12"	IIaO	.008	-0.7°C	18:53	20:15
25635	BD 48 924	03 21.4	49 03	"	"	"	-0.7°C	20:22	21:42
25636	BD 47 822	03 19.1	47 53	"	"	"	-0.8°C	21:50	00 05
25637	+10 84219 FT.	09 38.5	+44 53	"	"	"	-1.0°C	00 16	02 10

Some cloud at sunset

258

Dome Temp. 29°F → 20°F

Dome Temp. fixed 20° a 0000

Transparency Conditions Good

extensive ground fog at 01h — not as high as last night

all closed and fogged out at 02h10

Ending Time E.S.T.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
2h15	1h38m W	48° 23'	0-1	8.6	A3	3-3-3	Set 5 α Per 885 * Seq 9 {2548 2693} 45	/
2h45	1h07m W	49° 15'	0-1	8.5	A3	3-3-0	set 5 α Per 802 * seq 9 {2599 2644} 45	/
3h05	0h32m W	48° 05'	0-1	8.4	A3	3-3-3	set 5 α Per 694 * seq 9 {2648 2693} 45	/
3h10	0h19m W	44 35	-1	8.52	G3	3-3-3 10/8	set 5 KAFS. (Chart #29) seq 9 {2697 2776} 79	/

Date Tue-Wed Feb 7/8 1961 **Observer** DH – HvdB – **Julian Day** 2437338.5

319 00 00.4 3645.1

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.
1106 - 131	BD +57 584	2 25.6	+57 31	3-6-6	C4900	30		18:48	18 52
1107 - 131	BD +61 411	2 19.0	+61 32	5-6-6	5050 4700 ×2	30		18:57	19:18
	"	"	"	"	"	"		19:22	19 43
	"	"	"	"	"	"		19 55	20 18
1108 - 131	BD +57 584	2 25.6	+57 31	3-6-6	C4900	30		20 18	20 38
1109 - 131	BD +61 411	2 19.0	+61 32	5-6-6	C4974	30		20 40	20 53
1110 - 131	"	"	"	"	"			21 00	21 10
1111 - 131	IC 2149	05 48.9 1960	+46 06	1-6-6	5050 4700 ×4	30		21 35	22 08
1112 - 131	2 Leo Hickson	10 06.2	+12 10	1-4-6	5050 4750	30		22 40	
				1-4-5				22 55	23 04
1113 - 131	NGC 2841	9 18.6	+51 12	5-6-6	[illegible]	30		23 41	
25 438	BD +45° 1859	10 38.3	45 12	I-1½	IIa-O b	008	-2	0127	0519
	T.7.	07B							

ne Temp. +27°F

Transparency Conditions Ground fog at start
Improved by 2130

is.....

ne Temp.....

Ending Time E.S.T.	r Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
	1 16W						1 A/sec 2"/min local std. stars	
	1 47W						" [α = +61 41 δ = ½ d #411, #416	
	2 09W						" [α = +61 412 δ ½ d #411 #416	
	2 49W						α [illegible] δ ½ d #416	
	2 53W							
	3 21W						From α +61 412 to 4m E + return Time	
	3 39W						For δ 61 41 = + δ 61 41, t e #416	End chart
	0 10W						1 A/s 2"/min std. planetary reb.	
				133	B7V		1 A/s 2"/min...	
	2 10E						1 A/sec ½m/min	
	3 34W		2-[illegible]	7.59	F4	3-3-3	S of α KAFS #9 = 2853 (49)	
						10/8	8	
			MC	SC		ME	IPH +1? Tube	
		Feb. 8	+19.5	+16.2		+0.7		

Wm - Ki

Date Wed-Thurs Feb 8-9/61 **Observer** ..... **Julian Day** 2437.339

320 [illegible] 45.5 3644.0

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.
1114-131	δ Persei	3:35.8	47:28	5-4	4500-3650 x	30		19:20	19:50
	"			5-6	45 [illegible] 3150			20:05	20 45
1115-131	HD41724	6 01.8	31 [illegible]	6-6	4500 5550	30		21:11	21 51
1116-131	HD48953-4	6:41.0	16:52	6-6	[illegible]	30		22:22	23 00
1117-131	ζ Aurigae	4 [illegible]	40.56	6-6	4500 3650	30		23:06	23 31

ire Temp. +34°F Transparency Conditions Good

ns

ire Temp.

Ending Time E.S.T.	Angle nd	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
19 50					B5 III	1A/sec ÷ 11/sec	Refl'd Hack CO	
20 45								
17					A2	"	Trial Wash SE-S entire sensitivity	
10	10 W							
23 31							RA Shutter cable broken!	
							New RL in SE	
				MC	SC	ME		
		Feb. 10		+23.0	+18.4	0.0		

263

Date Fri/Sat Feb 10/11 1961 **Observer** dB-Hr **Julian Day** 2437 341.5

322 02 12.5 364 1.9

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.
1118-132	Σ Tau	4h 26 3	+19°06	5-4 6 4 5	5240 – 3300-5169			19h 45m	
119-133	M1 (Crab)	5h 32 0	+22°01	6/4/5	5169-33			20h 20m	Non
1120-133					5169-3300			20h 40m	
1121-133	γ Gem	6h 34 8	+16° 27'	4/5	5169-3400-5169			21h 15m 21h 20m	
1122-133	NGC 2419	7h 34 8	+38°00'	6/6/5	5169-3400-5169			22h 00m	
1123-133	NGC 2420	7h 34 8	+39°00'	6/6/5	5169-3400-5169			22h 30	
1124-133	NGC 2683	8h 49 6	+33°36'	6/6/5	5169-3400-5169			23h 10	
1125-133	γ Gem	6h 34.8	+16° 27'	4/5	5169-3400			23h 40m	
25639	BD+44° 1804	7 41.0	44 42	I-1½	IIaO b.008		38	00 29	0 36
	Thurs-Fri	Feb 16-17							
Cloudy at first - cleared up around 20h - set on									
H.D. 3171 - clouded out - cleared up 1.30							Temp +24°F		
					Ms.				

ne Temp.....

us.....

ne Temp.....

Transparency Conditions at beginning Cirr S and W
Later clear

0400 Thin Cloud.

0430 Cloudy.

Ending Time E.S.T.	r Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
			0	3.54	KO III		test	
			0	90	—			
	=0h 19m E		0	19s	AO			
	30" ÷			11.51			60" diaphragm	
	10" ÷							
	35m E		0	10.53			60" diaphragm Dofl too small, no spy	
	10" W						Stronger diaphr	
	4 30 v	44 25	20	7.87	A5	3-3-3	Sets KAF3 #10 2903 2991	good
						10/8	" "	
							2 PH +10 Dec's	
		Feb. 13				Feb. 15	Feb. 17	Feb. 20
		MC SC	ME			MC +32.0	MC +35.5	MC +40.3
		+29.0 +21.6	-2.0			SC +23.6	SC +26.2	SC +28.9
						ME -0.5	ME +1.0	ME -0.5

Date Feb 20-21 1951 Mon Tue **Observer** DH - KI **Julian Day** 2437351.5

332 08 08.3 3626.2

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.
1126-134	IC 351	03 41.1	+31 46	4-6-6	[illegible]	20		1855	1900
1126-1	[illegible]				5050-[illegible]	20		1906	
1127-134	BD+61 411	02 19.0	+61 32	5-6-4	[illegible]	20		2022	2028
25640*	BD+48 934	3h 03m.2	48° 11'	I-12	IIaO	.005	28.5	21:12	22 57

* Although the comp lamp OK, the shutter (T60) didn't work. Must be removed & fixed. Then finish work for the additional 6s. However, the comp star is a chance that he forgot to change the slide for the 6s comp. — in which case plate is OK.

ne Temp. +29°F

Transparency Conditions .....

us.....

ne Temp.....

Ending Time E.S.T.	ur Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
1117	11h 00 W						1 A/s 2"/min. Plan neb.	
							Cloud.	
2121							1 A/s 2"/min.	
2257	h 18m	48° 19'	0	8.6	A3	3-6	Set 3 dels & Sen 8 only 4 counts 14 Center 3024 – 3028.	good
			open	0045 – closed			Set right away – not home.	

5/5

7

Date Feb 21-22/61 Tue-Wed Observer DH Julian Day 2437352.5

333 08 34.5 3624.3

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.
25641	BD +46 748	03 18.6	+46 42	I-12	IIaD6	0.3	+2° C.	19 58	28 58
	Focus Test	OTB							

ne Temp. +31°F

us

ne Temp.

Transparency Conditions Light cloud at start
1900-1930 - tried photometer - no luck
general cloud throughout evening, overcast 2245

Ending Time E.S.T.	ur Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
2359	15 2m W	+46° 54'	0	8.9	A3	3.3 —	Set 3 α Per s.f of double Sens 9 Full exposure 45 3037 – 3075	l weak
						10/8	Set 8	c → v
							2 PH + 8 IIaO-baked	

	MC	SC	ME
Feb. 22	+44.5	+30.8	+1.0
" 24	+47.3	+32.7	+0.3
" 27	+51.5	+35.2	0.0

For 25:H1, had to use E-clamp to hold telescope

269

Date Feb 28 Mar 1 Tue Wed 1961 Observer DH Julian Day 2437359.5

340 10 44.1 3610.9

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.
1128-135	BD +61 411	02 19.0	+61 32	3050 4750 K3	5-6-1	30		19:18	1947
"	"	"	"	C4172 K3	5-6-1	30		1949	2007
25642	BD +49 967	02 26.5	+49 59	I135	IIO-6	008	+4°C	2038	2238

Dome Temp. +36°F
Focus 12.63 (as read)
Dome Temp.

Transparency Conditions
Moon very bright — fierce use of longer 2115 light [illegible]
Spectrograph set 23.8 at T. +4.2°C

Ending Time E.S.T.	Hr Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
1942	2h 36 W			1A/s	2"/m		α , δ - ½(41 - 41) Max α x-hairs 18 12
2057	2h 04 W						Direct δ - ½(41 + 41) α = 411 ± 1.5 2:50 3s 3:53 3s
2138	1h 26 W	+50 06	0-1	92	A2	3-6	α Per Set 3 Seeing 3077 - 3098 Poor work
							1 PH + 8 IIa-O baked
			MC	SC		ME	
		Mar. 1	+54.5	+37.3		-1.0	
							2300 Set on HD 92588 SD Vel - Cloudy

241

1961

Date MAR 1-2 Observer Lich Ki Julian Day 2437360.5

341 10 55.0 3609.1

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.
25643	49-958	3 24 7	49 33	1-12	IIaO	2.8	+2.0	19:00	21:34
25644	HD65583	7 59 3	29 31	—	—	—		22:30	23:40
25645	HD92578	10 36 3	-1 13	—	—	—		23:48	0045
	Focus Test						+0.9C	OTB	
					with spacers taken out about 9° from				
					full in — spectrum about 4 inches long				
					a very exposure?			OK	

ne Temp. +33

ous 12·63

ne Temp.

Transparency Conditions

after 00h haze + general fog cause excessively long exposures !!

Ending Time E.S.T.	r Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
34	29 W	49 45 –	0	9.1	F0	3-3-3	Thumbstars	Low Sc
15	03 W	29 21		7			Marks per frame. Sm 8 3:34 14	Sm
45	25W	–01 29	0	7.4	K1	3-3-3 10/8	– Marks this cover frame. Gem? {3164 3172 (8) Cover mark Sc Sm	Sc Sm
9'			MC	SC	ME			
		Mar. 3	+57.0	+39.2	-1.0			
		" 6	+61.5	+42.2	+0.2		Clocks need checking (red spot showing) Temperature control strip wire not tightened at 01h00 (but it needs it 2") Comet searchlight sporadic (maybe haze + clouds?)	
		BATTERIES PUNK !					IPH cooled + H a M	C

Date Mar 7-8 1981 Tue-Wed **Observer** DH - HS **Julian Day** 2437366.5

347 11 23.1 3598.8

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.
1129-136	BD+61 411	02 19.0	+61 32	5-6-5	1750	030		1940	2005
1130-136	"	"	"	"	4750	"		2010	2024
1131-136	"	"	"	"	"	"		2031	2045
1132-136	"	"	"	"		"		2053	2107
1133-136	IC 2149				4-6-5-0	"		2140	NG
	IC 2149	0548.9	+46 06	4-6-5		"		2207	2219
	"	"	"	4-6-5-3		"		2217	2231
	"	"	"	1-6-5				2234	2248
	"	"	"	1-6-6				2252	
	"	"	"	"				2256	2305
1134-136	[illegible]	[illegible]	[illegible]	1-4-6				2310	2327
1135-136	[illegible]	[illegible]	[illegible]	1-4-5		"		2332	2346
	0333-0150	[illegible]	[illegible]						
		HD 17[illegible]					4/5		
		[illegible]							

...ne Temp. +31° F

...nus.....

...ne Temp.....

Transparency Conditions good

light cloud - Sp. 22.15

Extinction fair to moderate

Ending Time E.S.T.	...r Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
							telescope reversed	
2.6	4 37W			1A/3	½"/min		$\delta = \frac{1}{2}(41 + 414)$ ∴ $\alpha = 411 - 2.0^m$ Trial set 22.5 First set 22.7	
2.1	4 45W			1A/3	2"/min		$\delta = \frac{1}{2}(411 + 414)$ $\alpha = 411 - 1.0^m$ Second set 22.7	
1.1	5 52W			"	"		$\delta = \frac{1}{2}(411 + 414)$ $\alpha = 411$ Third set 18.7	
2.1	5 57W			"	"		$\delta = \frac{1}{2}(411 + 414)$ $\alpha = 411 + 1.0^m$ 4th set 16.7	
11.—							? $N_1 = C\,49'N$	
2.—	3 03W			"	"	"	Pl. Nebula	
3.1	3 32W			"	"	"	" "	
2.—	3 41W							
11.5	0 35W							
2.—	3 41W			1.95	A5II		Oke Std Stars 1A/3 2"/min	
2.—	5 5W			1.33	B7V		Oke Std Stars " "	
		MC	SK	ME				
	Mar. 8	+64.0	+44.0	+1.6			1 Pol. Std. +45°	
	" 10	+66.0	+45.6	-0.5				

Date..... Observer..... Julian Day.....

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.

Foms test March 7
25645-F1
T = 01.6°C PH #1 set 5
F = 12.63 20/16

foms test March 8
25645-F2
T = -02.2°C PH#1 set 5
F = 12.63 20/16

Suspected lens slid forward and the retaining springs did not push it back. Ki

foms test March 8
25645-F3 20/16
T = -02.2°C PH#1
set 0 foms 12.71
2.5 12.69
5 12.67
7.5 12.65 ← BEST
11 12.63

ne Temp.....

us.....

ne Temp.....

Transparency Conditions.....

Ending Time B.S.T.	r Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality

Date Fri/Sat Night 10/11 1961 **Observer** DH, WdB - Ltd **Julian Day** 243 7368.5

3501 19.7 3594.0

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.
~~25646~~	~~HD37171~~	~~5h 34.3~~	~~+11° 00'~~	~~12"~~	~~IIaO~~	007	-8	21h 00m	22h 00
25646	HD 60298	7h 28.7	+25° 09'	12"	IIaO	008	-8	22h 12m	0 44
	Focus test OTB								
25647	HD103095	11 47.2	38 26	I-12	IIaO(b)	008	-8.1	01 00	01 52

...e Temp.... 15°F

...s..... 12.65

...e Temp.... +10 F

Transparency Conditions Fine

Ending Time E.S.T.	Angle nd	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
	~~1h 2nd~~	~~+11°00'~~	~~0~~	~~7.5g~~	~~V-Ent~~	~~3-3-3~~	~~vdB SB~~ No Plate in plateholder	
	1h 08m	+21°03'	1	8.01	G2E	3+3B	vdB SB ums 8:3?-18 Hazy, cloudy	fine
						10/8		Cal → V
	0 58	37 58.	0	7.3	G5-	3-3-3	Std Field ums 7 20 28 clouded out.	good.

Note Dec of 25647, ums
Notes Error. Prism had been
Off was did check at once?
Better check of type of book when
Num is be OK of 278

	MC	SC	ME
Mar. 13	+71.5	+48.3	+2.8
" 15	+74.3	+49.4	+4.2

Preamp not working
Brown not working

Date Thurs Fri Mar 16-17 1961 **Observer** DH-MS-KI (MS) **Julian Day** 2437375.5

356 10 12.4 35830

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.
1126 - 137	BD +61 911			5660	[illegible]	30		2 33	2 47
	"	"	"	"	"	"		2 52	
25648	HD 107328	12 15.3	+03 53	I-12[illegible]	[illegible]	008	-5.0	22 [illegible]	23 13
25649	HD 114762	13 07.6	+18 02	"	"	"		23 35	00 54
25650	HD 123782	14 04.6	+49 56	"	"	"	"	01 14	02 07
25651	HD 144579	16 01.5	+39 21	"	"	"	"	02 46	04 24
25652	VW Cyg Fei			"	"	·016		04 59	5 29
								5 29	5 47

Time Temp. +17°F → 12°F → 10°F

Obs. 12 65

Time Temp.

Transparency Conditions EXCELLENT

Start delayed by clouds.

02h – slight overcast – improved later.

Ending Time E.S.T.	Hr Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
	544 W						$\frac{1}{2}$: 411 – $\frac{1}{2}$m ; S. $\frac{1}{2}$ 411 + m	
							S = 411 + $\frac{1}{2}$ 414	
	43E	+3 31	0	6.1	K1	3-33	set 5 STD. VEL. seen 7 3270	fine
	0 55E	+17 21	0	8.2	F7	3-33	set 5 STD VEL. seen 8 {3351 3265	fine
	22E	+49 36	0	6.8	M_2	3-6	set 5 Std Vel. seen 7 {3246 3274	Good
	017E	+31 12	0	7.2	G_8	3-33	set 5 Std Vel. seen 7 {3277 3284 7	fine
	4cE		0	8.1	G8 K1	7	set 1 seen 8 3292 3305	good
	31E					7	set 5 3308 13	good
		MC	SC	ME			Ph #3 Corr. 6.1 + 6 Balal D. C	
	Mar. 19	+77.2	+50.5	+0.3				
							Drive Wheels on dome slip very much	
							H.A.M.	

Date MAR 17-18 Fri-Sat **Observer** udB (DH) **Julian Day** 2437376.5

357 09 55.4 3581.0

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.
1137-138	γ Gem	6h 14.8m	+16° 27'	4|5	5150 3500 ×2	30		20:19	20-35
	Standard			6/7/4|6					
1138-138	PG 0611+11	06 23.5	+16 17.6	5-6-5	5055 4175 ×2	30		2005	2018
	"	"	"	"	5075 4750 ×2	"		2024	2037
	"	"	"		"	"		2043	2056
1139-138	γ Gem	6h 3h.8	+16 27	4|5	5150-3500 ×2	"		21h50m	2210
1140-138	γ Gem Sky			4|5	5151-3500 ×2			22h10m	2215
	Standard			6/7/4|6				22h30m	
1141-138	NGC 2841	9h 18.6	+51 12	6/7/4|4	5155-3500	2×1 2×	first Sky Galaxy Second Gal first	23h05	0030
1142-138	NGC 3379	10h 45.2	+12°51'	6/7/4|4	5155 3500	30		24h00	14h56m
1143-138	NGC 4472	12h 27.3 (1920)	+08 16	4|6-7-5					0207
	" + Sky, Te								0330
25653	HD 114762	13 07.5	18 02	I 12|5	IIaO	00E	-8.8	0413	0533
	Tem Test		013						

e Temp. + 22°F

Transparency Conditions Perfect PE morning
Some smoke below 20° in NW

e Temp.

Ending Time E.S.T.	r Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
	0 23W					2"/min 6 A/S	not recentered at mid exp	
						2"/m	"	
	5 19W					2"/m 1 A/S	$\alpha = 411 - \frac{1}{2}$" Set S ξ: $411 - \frac{1}{4}(411 + 414)$	
	5 36W					" " "	SN δ $411 + \frac{1}{6}(411 + 414)$	
	5 53W					" " "	δ $411 + \frac{1}{3}(411 + 414)$	
						(I x 7/8) GA/Sec		
						"		
						"		
	1h 15m 0 SW					"		
	1h 40m W SW					"		
	0 55 0 SW					"		
	1 15 W SW					1"		
	2 W							
		+17 41	0	11.2	F_7	3-3-3	Set 2 Stoval #8 3347 3359	
						12/9 " B	IR H. +5 II Ub	

Date Mar 19/20 Sun/Mon 1961 Observer Br. – H Julian Day 2437379.5

359 09 15.2 357k.

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.
25654	BD 49° 975	03 29.8	49° 24'	12½	IIa O b	005	+3.5°C	19. 28	21 30
25655	HD 60292	07 28.7	+25° 09'	"		"	+3.3°C	21:40	23 02
25656	HD 92588	10 36.3	-01 13	"	"	002	3.3°C	23.16	23.50
25657	HD 114762	13 07.5	+12 02	"	"	"	+3.5	00 09	0046
25658	" 114771	13 03.0	29 59	"	"	"	3.3	00 59	0527
	7 on Dot								

ne Temp. 36°F Transparency Conditions clear

ps.....

ne Temp.....

Ending Time E.S.T.	r Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS				Quality
2 13	15 33 W	89 43'	0-1	9.0	A2	3-3-3	Set 5	α Per 1183	? Solution error of 5.0 mins?	Sens 9 {3362 3407} 45	Poor
21	3 02 W	25 03	0	8.0	G2V	3-3-3	Set 5	vdB 58		sens 9 {3410 3490} 80	Poor
2	43 W	-01° 33	0-1	7.4	K1	3-3-3	Set 5	std vel		sens 8 {3496 3521} 25	fine
3	51 E	+11 43	0-1	8.2	F7	3-3-3	Set 2	std vel		sens 8 {3528 3545}	good
3	3 55 W	29 40	0-1	10.05	F6	3-3-3	" 3	KAFS		#10 3549 3665	good
						1/2	" 3				Cir
								18 H + 11			
			MC		SC		ME				
		Mar. 20	+88.0		+52.9		+0.2				
							? Clock Slow ?				

285

Date Mon-Tue Mar 20-21 1961 **Observer** MR (DH) – Ki **Julian Day** 2437379.5

0 08 51.7 3574.3

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.
1144-139	IC 2149	05 42.9	+40 06	1-6-5	4750 + 5.×2	30		1922	1931
				1-6-6				1935	1940
1145-139	Mimas			4-6	5150	20		2215	
1146-139	Moon	06 40.5	+25 41	4-6	5150 + 3542×2	20	32°F	2241	2253
1147-139	Uranus	09 31.7	+14 28	6-5	5460 +	20		2310	
1148-139	P C Vir	12 31.7	+4 17	5-2	F1AG + 2232	30	31°F	2341	
25659	HD 130988	14 46.0	+45 18	12.5	II.OB	.008	+026°	0030	0205
	Tom Tool					.0073			

balanced at 22.7

Dome Temp. 40°F → 30°F

Obs. 12.61

Dome Temp. 28°F

Transparency Conditions Good at 0h00

Closed Out 02h

Ending Time E.S.T.	Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
193	12W						1 A/S 2"/min stl. pl. nebula	
3?4	21W							
							2000 – 2200 - jammed δ – GFL had to come & fix it.	
							1 A/S 2"/min	
		+25° 40'		+0.7	---	30"	4 A/S 2"/min	
		+14° 43'		+5 ?	---	30"	4 A/S 2"/min	
		+1° 2?		4.2?	GOI	30"	4 A/S 2"/min	
205	VOSE	+45°02	0	9.17	G5	3-3 10/6	at 4 KAFS [+45 34.4 +0 24] cens 10 {3671 3950}	

Closed Out 02h 15m

	MC	SC	ME
Mar. 22	+86.0	+85.1	-2.7
" 24	+89.0	+87.0	-2.4
" 27	+93.5	+89.5	-7.0

287

Date Mon. Tues. March 28/29 1966 Observer MR JT – Ki Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.
1149–140	Mars	$06^h\ 54^m.0$	$+25°\ 19'$	4-7	5166–3810 Neg and	20 ✓		23:27	23:33
1150–140	βCVn	12 31.9	+41 34	6-3	5170–3790 Neg	2x	11	23:48	

...e Temp.....

...s.....

...e Temp.....

Transparency Conditions .....

Ending Time E.S.T.	Angle ind	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
23 33					—	30"	4A/sec; 2"/mm	
		+41 34	—	4.88	GO V	"	" "	
							Clouded out by 0D^h 30	
							closed up 01^d 00.	
							Dec motor stuck - not stuck now (KJ)	

		MC	SC	ME
Mar.	29	+96.0	+61.1	-1.4
"	30	+97.3	+62.0	-2.5

289

Date Th/Fri Nov 30/31 1961 **Observer** vdB + DH Ki **Julian Day** 2437389.5

⊙ 10 02 51.8 3551.8

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.
1151 – 141	γ Gem	06h35m	+16°27'	5/2	5150 → 3500 2x	20		19h50m	2005
1152 – 141	γ Gem	"	"	"	"	"		20h20m	2035
1153	Source			6/5/4/3	5150			20h45m	2055
1154	γ Gem	"	"	5/1	5150 → 3500 2x	"		21h02m	21h15
1155	Source			6/5/4/3	5150			21h25m	2130
1156	γ Gem	"	"	5/1	5150 – 3500 2x	"		21h30	21h45
1157	4 Leo	10h05m7	+12°13'	4/5	5150 – 3500 2x	"		22h05m	22h20m
1158	Source			6/5/4/3				22h35	22h50
25660	HD 111851	12 47.1	+44 33	I-12½	II a O bw	208	+02.1°C	2307	0105
25661	HD 135721	15h11.5	+60°19	I-12.5	II a O b.	0.008	+02.1°C	0125	0430
	FT	07E							

Thu 6 Ki. Opened up 01h Set on HD 131861
closed out – closed up at 02h.
151

Dome Temp. 27°F → 28° at 00^h

Focus 12.61

Dome Temp. 25°

Set heater 22.7 for temp - +2°2 C

Transparency Conditions Fine Some Thin Cl in W

seeing very good 00^h

seeing poor after 03^h

Ending Time E.S.T.	Hour Angle End	Declination Mid exp	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS			Quality
		1^h40^m W		1.95	AO IV		Centering OK			
		2^h05^m W		"	"		centering OK			
		2^h47^m W		"	"		centering OK			
		3^h17^m W		"	"		Centering OK, Sb Sa on IIaJ			
		0°20^m W		1.33	B7 IV		centering OK			
10 30	10 30 W	+44° 14'	C-1	9.27	F6	3-3-3	Set 3 KAFS	45 needed Sens 9	{3763 3808 (5)	Good
4 30	1 34 W	+Dec 04	1-2	9.60	A8	3-3-3	set 4 KAFS KA #13 +0.5 -3.4 sens 10		{3820 3940 (12)	Good
						10/5	sit 7			Poor
		MC	SC	ME						
	Apr. 3	+103.0	+63.7	-3.0						
	" 5	+106.0	+64.3	-3.2			IPH + 40 more B+J IIaJ's			
	" 7	+108.0	+65.1	-3.7			Last Apr 1-2. 150 visitors Cloudy. He + I showed plates + telescope.			

Date April 1/61 Sat. morn. s/g Observer vdB + I-L Julian Day 2437398.5

0 18 54 28.6 3535.1

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.
25662	8 Leonis	11h 08.8	+21 04'	I.2	IIaO b	008	3.5°C	22h 26m	22h 26m
25663	HD 107328	12 15 3	+03 53	"	"	"	"	23h 00m	23h 14m
25664	40. 114762	13 07-5	18 02	"	"	"	3.0	00 20	01 04
25665	BD 29° 2495	14 02.6	29 45	"	"	"	3.0	01 12	04 56
	Focus Test					O.T.B.			

Dome Temp. 30°F Transparency Conditions Fair

Focus —

Dome Temp.

Ending Time E.S.T.	Hr Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
	0h10' E	+20° 46'	1	2.74	A4V	—	MK Standards 1 exp setting 3, 1 exp setting F	
	15' E	+ 3° 30'	1	6.1	K1	3,3,3	G1 – G5	Standard Velocity (spotty)
01 04	44W	+17 43	1	8.2	F7	3-3-3	Std Vel stars 8 3966 3980	fine
04 56	3.41W	29 27	1	10.0	F8	3-3-3	K.A.F.S. " 10 3982 4081	fine
						198	Increasing cloud through exposure	
							1PH loaded +4	

		MC	SC	ME
Apr.	12	+115.8	+68.4	-0.4
"	14	+118.0	+68.8	-0.3

160 vis. ry, γ Leo shown

Dome slipped when moving

Date Apr 16/17 1961 Sun/Mon Observer Br. (Hr) Julian Day 2437406.5

⊙ 26 44 59.3 3520.1

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.
25666	BD 44° 1904	9h 41m 0	44° 42'	12½	IIaO	.008	5°C	20:57	23 20

Dome Temp. 35°F

Transparency Conditions Cloudy early, opened 20.30 294

Focus Fixed

Dome Temp.

Apr 15 Dat. Cloudy ~150 visitors. Films + Densitometer

Ending Time E.S.T.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
23 20		44 °24'	0-1	9.35	A5	3-	Set 5 KAFS. Clouded out Seno 10 {4090 / 4138}	48 Too much
		MC	SC	ME				
Apr. 17		+1.0	+9.4	+0.5				

large puddles on floor - plate box in spotting room soaked but relatively dry inside (I hope plates weren't wet).

Date Apr. 18-19/61 Tue.-Wed. Observer DH - Hr Julian Day 2437408.5
0.28 42 17.4 : 3515.9

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.
25667	HD 142592	1550.3	45 15	I-12.5	IIa-b	.002	+6.0	0104	0342
25668	" 144579	1601.5	3924	"	"	"	6.0	0358	0440
	Poss Dist.		07B						

me Temp. +40°F

us 12.61 (fixed)

me Temp.

Transparency Conditions "Clearing" before midnt. 29½
0155 clouds, D
Good after 0230

Set heater 25.2 for temp = +6.2°C

Ending Time E.S.T.	ur Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
0342	120W	+45 04	0	9.25	A_2	3-3-3	Set 3rd KAFS #9 4161 4209 (48)	b. sky
0442	208W	39 15	0	7.2	G8	3-3-3	" 3 STD. VEL. #7 4213 4219	fine
						10/8	" 8	c to v.
							No P.H. loaded	
							No plates in Dome	
			MC	SD		ME		
		Apr. 19	+3.3	+10.0		-2.6		

Date Apr 19-20 Wed-Thu Observer Wr - Ki Julian Day 2437409.5

⊙ 29 40 53.3 3513.7

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.
25669	HD 112297	12 50.6	+44 50	I-12.5	IIaO-B.	0.008	+084°C	0006	02h 58m
	FT		OTB						

ne Temp. 39°F

us 12.61

ne Temp.

Transparency Conditions Good.
very poor 01h
closed at 03h

Ending Time E.S.T.	r Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
09.5								
13.7								
02"58"	3 40 W	+44° 31'	1-0	9.48	F8	3-3-3	KAFS Zone 32, set 2 conv 9 {4228 4269 41.4}	fine
						10/8	set 8	C. H. W.
							1PH Lovell + 10 II.0A	

Date Thurs Apr 20-21/61 **Observer** HL - IS' **Julian Day** 2437 +10.5
@ 30 39 27.0 35 11.6

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.
* 25670	HD 83697	9 35.2	+44 39	I-12	IIaO B	.016	+10.2	20 06	22 50
* 25671	BD +30°2175	" 39.8	+29 59	"	"	.016		22 59	02 05
25672	HD 144579	16 01.5	+39 24	I-12	IIaO	.016	+10.2°	0221	0246
	"	"	"	"	"	.008	"	0247	0325
25673	HD 184467	19 29.5	58 24	"	"	"	"	0416	0447
	FT			dif	0.008	OTB			

* The star marked 25671 is really 25670
" " " 671 " 25671

ue Temp. 39°
us 12.61 fixed
ne Temp.

exp meter balances more easily at 04h

Transparency Conditions

Telescope badly out of balance at 4" west ie: image will not stay on slit

Balance Tuning unstable at zero 10.

Ending Time E.S.T.	r Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
22 5	12 50	44 24	0	9.7₂	G8	1-2-1	set 2. KAFS Tuned set 008 hopeless! zero 10 4277 4377	Good
0235	04 12	29 37	0-1	9.8	G5	2-1-1	set 3 KAFS Tuned a little more sensitive zero 9 {4381 4420	Good
0246	0022	+39° 14	-1	7.2	G8	1-2-1	Set 2 Std Vel. zero 7. {4421 4429	
0325	0101	"	-1	"	"	1-3-3	set 6 " " " " {4430 4438	
0447	0104	+58° 31'	-1	7.5	K5	3-3-3	set 2 " " zero 8 {4446 44 "	Good
						10/8		Good

	ME	SE	ME
Apr. 21	+6.0	+11.1	+9.4

2 PH loaded + 5 IIa0 6.

Han M.

L: Dome drive wheels slip very badly when turning stit to West (Had to go west via North)

Date Sat/Sun 1961 Apr 22/23 Observer MR L – L Julian Day 2437412.5

⊙ 32 36 28.0 3 5 07.3

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.
						Set			
25674	BD+30°2175	11 29.8	+29 57	I-12	IIa-O	.016	+8.0C	22:42	01:42
25675	" +29°2751	15 57.6	+29 42	"	"	"	+7.8	01:50	04 36
	Focus Test				O TB				

ne Temp. +42°F

Transparency Conditions good

80 + 60 = 140 visitors - Sunset Moon in 74° (not bad)

MR - L - 2 RASC telescopes, Terry Dickinson 31" Newt

ns.....

ne Temp. 42°F

Ending Time E.S.T.	r: Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
01 45	55W	+29 36	0-1	9.78	G5	2-1-2	St 3 KAFS Aug 55'	fine
043	24W	29 38	0-1	999	F5	2-1-2	" 4 "	fine
						5/4	" 0	c. to vi.
							1 PH. Loaded + 4	

	MC	SC	ME
Apr. 24	+10.0	+11.8	-2.5
" 26	+11.5	+12.1	+1.0

Date Wed-Thurs Apr 26-27 Observer Wn — Ki Julian Day [illegible]
© 36 30 04.4 3499.0

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.
25676	HD 95975	10 59.2	60 06	I-12	Ila 06	.016	8.0	22:20	01 00
25677	HD 135741	15 11.6	59 56	I-12	"	0.016	"	01 12	02 33
25678	HD 135962	15 12.9	59 49	"	"	"	"	02 45	04 42
	FT	OTB							
	Calendar	Eqx 27			Wn - I				
	15	50 [illegible]				Some clouds			
	[illegible]								
	[illegible]								

ne Temp. 42°F
is 12.61
ne Temp. 41°F

Transparency Conditions

drifty clouds 20 21-
even haze at 00h (quite thin by 01h) KI

Ending Time E.S.T.	r Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
01 00	00 W	+59°45	0	9.85	F7	3-3	KAFS #13 set 5 (:) sens 10 {5052 5120	fine
02 33	23 W	+59 38	0	9.45	F5	2-1	KAFS #15 set 3 sens 9 {5121 5168 97	fine
03 02	30 W	+59°32	0	9.69	G8	1-2-1 5/4	" #15 set 6 (folder stood at set 3) sens 10 {5172 5203	good OK

2PM + more in long

		MC	Sd	ME
Apr	28	+13.6	+12.5	-6.0
May	1	+17.3	+13.1	-7.0

Date M-1-2/61 Observer MR - DH - HV Julian Day 2437421.5
©4121 20.3 3489.9

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.
1159-1162	Neptune	14 32 5	-13 03	3-65-3	5200 – 3500	20v		23:40	24:00
25679	HD 133965	15 02.2	+29 35	I-12½	IIa-b	.008	+5.5	0035	0353
	7 more	7 at	07 B.						
	MMg 3-4/61		* Hγ opened Hδ closed						

ne Temp.....

is.....

ne Temp.... +34°

Transparency Conditions Clear

Clouds ~T 0345

Ending Time E.S.T.	r Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
2430				~7.7		30"	+A/sec, 2"/min Trouble with a feature	
0353	511W	2919	0	9.42	F6	3-6	Set 3 KAFS #9 5285 5324	R Nova
						1/8	" 8	c. to v.
							1 P.H. Found + 0	
		May 3	MC +19.5	SC +14.0	ME -2.5			

307

Date May 4/5 1961 Th/Fri **Observer** vdB-Sa-Hy **Julian Day**

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P
-1160-143	α Leo	10 05.7	+12°13'	-4-4-0	5150-3500	28		20h 18m		
-1161-143	Source			-3-6-0	—			20h 35m		
-1162-143	NGC 3607	11:11.7	+18:20	5,6,5,0	2x+SV+Y			21:11 +	2:39	
-1163-143	NGC 4472	12.24.6	+08:33	4,6,5,3	2x+SV+Y			22:00 +	2:19	
-1164-143	α Leo	10 05.7	+12°13'	-4-4-0	2x+SV+Y					
-1165-143	Source			3-6,0						
1166-143	NGC 5024 M53	13 08.0	+18°42	4,6,5,3	2x+SV+Y			23:21 +	2:39	
1167-143	NGC 5904 M5	15:16.5	+02:14	5,6,5,3	2x+SV+Y			00:41 +	1:02	
-1168-143	α Cr Bor	15:32.6 (1950)	+26:53	4,6 x1; 4,5 x2				1:26		
1169-143	6205 M13	16 41.2	+36:39	4,6,5,1	2x+SV+Y			2:06	+2:25	
-1170-143	α Lyr	18 35.3	+38 44	3-6	2x+SV+Y			2:57		
-1171-143	— " —			3-1						
-1172-143	α CrB	15:32.6	+26:53	4.5	2x			3:38		

Dome Temp. 50°

Focus —

Dome Temp. ....

Transparency Conditions Fine in South, thin Ci in NW (wind from NW) Dip 1 am Noon shows no clouds 308

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
0h50m W		1	1-33	B7V		4 A/sec centering ok	
0:34W	+0 53 W		11.0			centering ?	
0:17W	+ 0 34 W		9.33			22:10 — add 1 dry ice	
3:25W	+		1·33	B7V			
			~~8.7~~	~~A~~			
0h51m W	+ 1:10 W		8.7	A8n			
0h06m W	+ 0:27 W		7.0	dF7		bright sky — moon 01:15	
(0:34 W)	0:45 W		2.2	A0V			
	+ 0·26 W		6.1	dF2			
0°54m E			0 03	A0V			
2·			2 2 3	A0V			
2:43 W						centering poor	

	MC	SC	ME
May 5	+22.0	+15.1	-4.5

Date May 5/6 1961 Fri/Sat Observer vdB - Hl Julian Day 2437425.5
@ 45 13 50.7 3484.0

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.
1173-1	HGC 3379	10 45 2	+12 51		4/6/7/13	28	20°45m		
	Dark Test								
25680	BD+45°2134	13h 46m 8	+44° 52'	12"	IIaOb?	.16	13	21h 50m	50 50
					10S	Iron arc			close
	Focus Test		OT 13			008			
25681	HD 105001	16 03 6	+ 17 19	I-12	103aD	008	+13.2	01 23	01 35
								01 36	01 46
								01 47	01 58
25682	HD 144519	16 01.5	+39 24	"	"	"	+13.2	02 [illegible]	02 40
								03 [illegible]	03 24
								03 [illegible]	04 10

Dome Temp. 52 °F

Focus

Dome Temp.

Transparency Conditions Partly Cloudy
Cirrus West
ACTO Allowed

Ending Time E.S.T.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
			1?	10-5	57		(poss. of NGC 3384) TEST Ampl. with new Time Constant	
	W 1 3?	45°33'	0-1	9.9	F9	1+2+1	KAFS Transparency poor — Sky motion very unsteady	Good
	False start of program Test					9	PH was not clamped Slit was not fo. long enough	Cloudy
						10/8	set 1	
			0	6.1	G4	2-4	set 1 Started Series 5 5368 5372	Fair
		17 07	0		G4	3-3	" 5 Took 5 stars of pairs, OK? Series 6 5373-5377 Series 6 5377-5382	
						3-3		
		39 14	1	7.2	G8	2-2-2	set 2 PH Started 10:30 Series 7 5383 5384 5389 5395 5396 5402	Fair
						2-2-2	set 5 "	
	N 2 45		0			2-2-2	" 9 "	
							PH 243 Finished with 10:30	

Date May 7/8 1961 Su/Mo **Observer** Hy (vdB) – L **Julian Day** 2437427.5

⊙ 47 09 57.3 3481.4

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.
25683	BD +44°2112	11 33 2	+44 39	12"	103aO	16	19°C	20h40	00 10
25684	HD 131381	14 48.2	45 35	"	"	"	17.5	0026	02 36

Dome Temp. 57°

Focus

Dome Temp.

Transparency Conditions Fair

Ending Time E.S.T.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
37.5	3 19W	+44° 18'	0-1	9.65	F7	1+2+1	KAFS #31	Where is p.h. #3? Good
48 4	2 31W	45 18	0-1	9.68	F8	1-2-1	" 34	Clouds Good
							1 P.H. loaded with 103A. Baked II a.m. is done	
				MC		SC	ME	
		May	8	+26.0		+16.4	-0.8	
		"	10	+28.0		+17.0	-1.8	

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Date May 10/11 1961 Observer G, Hy, vdB Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.
1174-145	α Lyr	18 36.2	+38 40		1,5,4,0	28		21:41	21:56
~~1174-145~~	~~NGC 4449~~	~~12 29.4~~	~~+36 00~~		~~5,6,7,4~~	~~2x+ sky~~		too faint	
1175-145	NGC 4826	12 51.9	+22 13		5,6,7,3	2x+ sky		22 10	22 07
1176-145	NGC 5272 ⊕ M3	13 37.6	+28 53		5,6,7,1	"		23:15 +	23 33
1177-145	α CrB	15 33.0	+26 51		1550	2x "		00 05	—
"	"	"			1540			00:10+	—
1178-145	Sun				1,5,1,0			[illegible]	
1179-145	NGC 5904 ⊕ M5	15 13.4	+02 27		5,6,5,0			00 [illegible]	1:02
1180-145	NGC 6254 ⊕ M10	16 51.9	-03 58		5,6,5,2			1:33 +	2:00
1181-145	NGC 6341 ⊕ M92	17 14.0	+43 16		4,6,5,3			2:32	2:50
1182-145	α Lyr	18 36.2	+38 40		1450			3:15	
1183-145	α CrB	15 33.0	+26 51		1550			~~3:35~~	
"	"	"	"		1540			3:37	
1184-145	Sun				1510			3:55	

Dome Temp. 46

Focus

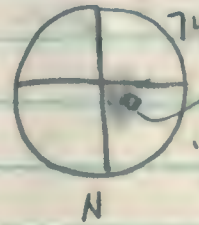
Dome Temp.

Transparency Conditions some clouds in E. Ci in North, probably not photometric in North 10.30 in poor to impossible 12. looks photometric on 3.4 per h.T.

Voltage on Tube changed to 700

Ending Time E.S.T.	Hr Angle ~~End~~ middle	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
1:56	L 39 W		0	1.36	B7	STand	Voltage changed 650 → 700 after ~~start~~ (omit :)	
				~~1.09~~	~~B7~~		haze + cirrus during day. low cloud in N + N.W. at 22:00 green glow low in N. 22:40: virtually no cloud or glow	
	0:41 + 1:00 W			9.27	G7			
	1:39 W + 0:57			7.2	dF_2		23:30 dead clear.	
	No good			2.21	A0V	Stnd		
	D:19E							
1:02	0:32 W + 0:51 W			7.0	dF_7		(0h 20 clear. slight green glow very low in N.)	
2:00	0:17E + 0:11 W			7.6	G0		centring poor at end] also ice low.	
2:50	0:24 W + 1:40 W			7.3	$A5_0$			
	0:14E			6.0	A0V			
	No good			2.21	A0V	ST	twilight beginning	
	3:09 W							

74" field



position for object to be 'centred' in spectrophotometer

Date May 11-12/61 Observer Hr - MS Julian Day 2437431.5
⊙ 51 01 54.8 3476.0

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P
25685	BD+45°1859	10 38·3	45 12	I-12	IIaO b	.008	+14	20 49	01:15	1
	Focus test									
25686	H.D.153454	16 54 6	+17 51	I-12	IIaO	.008	14.0	01:47	02 55	2
	"	"	"	"	"	"	"	02:56	03·42	

Dome Temp. +52° F Transparency Conditions FAIR (Thin Cirrus) 316

Focus .....

Dome Temp. .....

23h02 Brilliant FIREBALL S→N. 15° above Western H[illegible]. (Green?)

Ending Time E.S.T.	Star Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
01:15	5:35W	+71 53	0	9.59	F4	3-3-3	S.T. 2 KAFS #10 5418 5481	good
						12/8	set 7	
2:55	1:02W	+17° 46	0-1	7.56	A0	3-3-3	set 5 KA 8x8 (field as given) Stars. 8 5495 5513 5511	good
3 +2	1:47W	"	"	"	"	3-3	set 9 KA 8x8 " 8 5517	fine

cut off by thickening haze.

2 P.H. +8 (II c-c)

+1 P4, with 103a-0

31+

Date Day 13/14 Sat/Sun Observer vdB · M°R Julian Day 2437433.5

0 52 57 45.4 3473.2

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.
25687	HD131447	14 48 6	+14 39	12"	IIaO*	016	22°C	22h33m	22 21
25688	HD145001	16 03·6	+17°19'	12"	IIaO	·008	22°C	0256	0350
		FOCUS TEST				OPB			

* No Day 11/12 does not state with — PR contains 10340

[MARKED WITH PRESS OF FACE - WL]

e Temp.... 63°F

Transparency Conditions Fine, haze at low alt.

s.....

e Temp.... 62°F

Ending Time E.S.T.	Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
	3° W	+44°22'	0+	9 88	98	1+1+1	KA 34 # 353 4 hrs exp	good
	59 W	+17°10'	0-1	6'1	G4	3-3-	STD VEL SET 3 (Spectra shown at end of tape)	fine
						10-4	SET 6	
			MC	SC	ME			
		May 15	+33.5	+19.1	-2.8			
							1 P.H -103-40 [PH # 4]	
							1 P.H II -0 [P- # 3]	
							+7	
							UNSPOTTED Lines in Dome.	
							150 VOLTS M2 shown	

Tue-Wed

Date May 16 17/61 **Observer** WLB, Cag **Julian Day**

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.
-1185-146	Source				1,4,6,1	2S		20:17+:20 (middle of)	
-1186-146	α Lac				1,5,2,1	3x		20:42	
-1187-146	α Lac				1,5,3,1	2x		21:07	
-1188-146	Source				1,4,6,1			21:26 + :23½	
1189-146	" Source				1,4,6,0				
1190-146	M13 5272 M3				5,6,7,1	2x+5sky		22:46 + 1:05	
1191-146	"				"	2x only		23:36	
-1192-146	α Cr B				1,5,4,0	2x		00:12	
-1193-146	Source				1,4,6,0			00:11	
1194-146	M13				5,6,7,1	2x+5sky		00:33 + 00:50	
1195-146	M92				5,6,7,0	2x+5sky		1:20 + 1:38	
1196-146	M92, M13				5,6,7,3	2x+5sky		2:08 + 2:27	
-1197-146	α Lyr				1,4,5,0	2x		3:01	
-1198-146	α Cr B				1,5,4,0	2x		3:23	
-1199-146	Source				1,4,6,0			3:45	

Dome Temp. 51

Focus

Dome Temp.

Transparency Conditions Night perfect!

320

TRACINGS to 3400 Å

Ending Time E.S.T.	Hour Angle	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
	05m W	2h14m	0−					
	2h30m							
	0:35 W + 0h54m			7.2				
	1h15m W							
	0h13m E			2.21	A0V		std.	
	0:38 E + 0h:21m E			6.8	dF2			
	3h26m E + 0:09 E			7.3	A5m			
	0h03m + 0:23 W			9.4	G0			
	0h04m E			0.04				
	3h21m W		0-1	2.21	A0V			

	MC	SC	ME
May 17	+35.7	+19.2	-2.0
May 19	+38.0	+19.4	-1.0

321

Date May 19/20 Friday 1961 **Observer** vB-L-F **Julian Day** 2437439.5

© 58 44 41.4 3463.8

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P
25689	SN NGC4564	12 31 5	+11 59	12"	103a0	.040 !	14	22h 10m	01 14	1 4 13W
25690	HD 184467	19 29 5	58 24	"	IIaO Baker	.008	14.0	01 53	03 07	2 50E
25691	" 187691	19 46 2	10 10	"	"	"	13.8	02 27	03 37	
	"	"	"	"	"	"		03 37	0347	
	"	"	"	"	"	"		03 47	0357	3 19E
		Focus Fast				O.T.B.				

Dome Temp. 54°

Focus —

Dome Temp.

Transparency Conditions Fine

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
13W	+11°37'	1	11	Q!!	1+ - ½	Supernova in NGC4564 m ≃ 11 (Type I)	
50E	58 28	01	7.5	K_5	3-3-3	Standard Velocity F. guiding	
	10° 18'	0-1	5.8	F_8	4½ - 4½	Set 1 " "	
			"	"	4½ - 4½	Set 3½	
19E					4½	Set 7	
					10/8	" 10	

2 Plts loaded
4 in Ref

Why was my note not used?

	MC	SC	ME
May 23	+42.6	+18.3	+2.0

323

Date Tuesday May 23-24/61 Observer WdB — H Julian Day 2437443.5

⊙ 62 35 27.4 345 7.6

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.
1200 -147	α Leo	Standard		1440	28			20ʰ25	20ʰ55
1201 -147	α Leo	"		1440	"			20ʰ55	21 15
1202-147	Sunset			1420	"			21ʰ18	
1203-147	NGC 4564 + [SN]			(6,7,3) 4 6,7,3		x + sky		(21:22) 21 5	+ 2 exp.
25692	NGC 4564	12 31 5	+11 59	12"	103a⊙	.100!	14°C	22:30	2335
					I				

Dome Temp. 5
Dome Temp. 5
Hr Angle End

Dome Temp. 54

Focus

Dome Temp. 51°F

mid

Transparency Conditions

Sat. Sun May 20-21 1961

cloudy. 110 + 75 = 185 visibility

MR + I

324

VOLTage 900 today only

Ending Time E.S.T.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
	2h26W		0-1	125	B7V		In twilight	
	2h44W		"	"	"			
	1.06W + 1.24W						Moon is close ≅ 10° (Comet may be near image — considerable of same spectrum, but) received at 34,50!	
			0		Q!!	-1-	SN 4564 (Saturn on May 19/20 exposure terminated thin cloud no guiding probe	
							2 P.H in tray. Sky woose after MIDNIGHT (see SC)	
		May 24	MC +44.0		SC +18.3	ME 0.0		

Wed - Thu

Date May 24/25 1961 Observer Cpt F - HS Julian Day 2437444.5

Forward on Wed.

0 63 33 05.0 3456.2

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.
25693	HD 126202	15 14.2	+02 [illegible]	I 12	IIa-O	.05	20	22.34	22:54
								[illegible]	23 05
25694	28 Boo	14 32 [illegible]	[illegible]	"	"	"	11	23 16	23:26

Dome Temp. 65

Focus

Dome Temp.

Had trouble with RA slow motion 21:45 - 22:40 - called Jerry replaced fuse.

326

Transparency Conditions Poor at 21h. Haze all night + clouds starting 22h - clear until 23h clouds moving in from west 23:30 clouds all over.

Ending Time E.S.T.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
2:5-	2:30E	-1:55	0-1	5.6	Go	3-3	5+2 Std. Val (dd mm ss)	strong
1:5	1:21E					3-3½	.91 (residuals in tenths)	strong
5:1	0:45W	-9:5-	0-1	4.5		10	Sc Sky-gap AF — CLOUDS-STONED	strong

Why was sky written out?
No frame list

1PH + 3 in yellow box

	MC	SC	ME
May 26	+45.3	+18.4	-1.2
" 29	+48.4	+18.8	-4.3

327

Mon-Tues May 29-30

Date 28/29 MAY '61 Observer Hr - I Julian Day 2437449.5

068 20 52.4 3449.9

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P	Hour Angle End
25695	HD 144579	16h01.5	+39°24	I12	IIaO	008	11°C	0h57m	2h09mm		1h38W
25696	HD 187691	19h46.2	+10 10	I12	IIaO	008	11°C	2h28m	2h44m		2h53E
25697	HD 212943	22h 22.8	+04 12	I12	IIaO	008	11°C	3h00m	3h12m		3h01E
	"							03 16	3h 26		2h43E
		Focus	Test		OTB						

Dome Temp. 45°

Focus

Dome Temp. 45°

Transparency Conditions Good at 1:30

" " 2:30

Bright Full Moon

Becoming Overcast 3:49 a.m. (NE local) (EST)

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS		Quality
2h 18 W	39° 14'	0	7.2	G8	3-3-3	Set 5; Std. Sub.	7, ST. 5688 5696	/
1h 53 E	10° 17'	0	5.8	F8	3-3-3	Set 5 Std Vel	6 5698 5701	/
3h 01 E	4° 28'	0	5.9	K0	3-	Set 5 Std Vel	6 5703	/
2h 46 E					9	" 9 " "	" 5711 5715	*
					10/8	Set 1		*

* Comp spoiled by [illegible] fewer Cal lines superimposed.

PH 4 in Yellow Box (+ finder)

329

Date Tues Nov 30-31 Observer Hd - L-F Julian Day 2437450.5

0 69 18 22.3 3448.8

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End
2569	HD 89449	10 19 2	+19 59	I-12	IIaOB	008	15.4	20 50	20 56	4
								21 00	21 05	4
								21 09	21 11	5
2569	~~HD~~ HD 4071	~~13 [illegible]~~	~~+24 59~~	I-12	IIaOB	008		~~21 27~~		
	HD 107328	12 15.3	+03 53	I-12	IIaOB	008	15.0	22 15	22 33	
								22 39	22 50	
			Focus Test		OTE					
2569	HD 114762	13 07.5	+18 02	I-12	IIaOB	008	15.3	23 07	23 15	
2570	HD 123792	14 04.6	+19 56	I-12	IIaOB	008	15.0	23 59	00 14	
	"	"	"	"	"	"		00 16	00 22	
Focus Chart.		0	12.71							
		2½	12.69	— Best		So out.				
		5	12.69							
		7½	12.65							
		10½	12.63							

Dome Temp.....

Focus.....

Dome Temp.....

Transparency Conditions .....

Ending Time E.S.T.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
			1	5.3	F_5-	3-3-3	Set 2 Std Vel Seq 5 5724 5726	
						9	Set 5 5727 5729	
	3h 09 W					9	Set 8 5730 5731	
				10.08	F_8		~~Set 5 KH~~ Clouds ~~Seq 10~~ 5733	
		+03 32	1	6.1	K_1	3-3-3	Set 2 Std Vel Seq 6 5741 5743	
	47 W					3-3-3	Set 5 5746 5750	
						10/8	Set 5 Focus	
	5h 51 W	+17 46	1	8.2	F_7	3-3-3	Set 2 Std Vel Seq 8 5751 5765	
	22 W	49 38	1	6.8	M_2	3-3-3	Set 2 Std Vel Seq 11 5768 5776	
	37 W	"	1	"	"	3-3-3	Set 8 " " 5777 5785	
							Clouds 1 PH Cancelled +8	
			MC	SC	ME			
		May 31	+51.0	+19.5	-6.0			
		June 2	+52.8	+19.9	-0.3			

331

Date Fri Sat Jun 2-3/61 Observer WSG - HS Julian Day 2437453.5

⊙ 72 10 46.1 3446.4

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.	Hour Angle
1204-148	α Cr B			1550	28	2X		21:27			15E
1205-148	"			1570	7!	2c		21:48			1E
1206-148	"			1570	7			22:05	22:34		0:E
1207-148	"			1550	28			22:43			
1208-148	Source			1450	—			23:01			
1209-148	ξ Boo	15	14 0(1960)	+33:27	1620	50!			23:09		
1210-148	τ Cr B	16	07.8(1960)	+36:35	1650	"			23:32		
1211-148	γ Her	16	20.2(1960)	+19:14	1620	"			23:56		
25702	AO 144579	1601.5		37-4	1-12.5	IIa-O	.008	+10-	0037	0123	
25703	" 184467	19		5 24	"	"	"		0203	0247	
	Tr — 1										

Dome Temp. 64°F

Focus

Dome Temp.

Middle

Rain at 20h

Transparency Conditions Fair — somewhat [illegible]

Voltage at 700 (Low gain)

(on Direct Current meter, set to 70)

21:35 – very clear.

23:10 – lots of thin wisps of cirrus – no [illegible]

23:35 – clear and steady, the type in progress

[illegible] – fluffy cirrus overhead

332

Decided not to take any more regular plates.

Ending Time E.S.T.	Hour Angle East	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
	1:29E		10"		(trace appears dia)		(recall sizeable haze in 28 to 30")	
	1:09E							
	0:52E	03°21'E						
	0:14E							
	0:32W			3.5 G III	MK Std. – not well centered			
	1:01W			4.9 K0 III	"			
	0:12W			3.8 A7 III	"		intermittent clouds,	
	1:17W	39 14	C-1	7.2	G0	3-6	Set 2 STD. Vel.	#7 57.94 5802
	1:11W		C	7.5	K5	3-6	3 Very cloudy	#7 5507 5811
						10/8	8	OK
							Init on Dec 4 6	
							02m Clouds, wind moving Dome	

3350

Date Sat - Sun June 3-4 Observer Hy Cl. Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.
~~25703~~	~~BD+45 2544~~	15 48.6	145 00	I-12		.008			

Dome Temp.....

Focus.....

Dome Temp.....

Transparency Conditions 334

140 visitors
Hy, Cl, KM.

Ending Time E.S.T.	Hr Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
							RA wouldn't work.	
							— fixed by Jerry	
							but — clouded up	

VdB
Hy
W

Date Sun-Mon June 4-5 Observer F - Julian Day 2437455.5

0 74 05 38.2 3445.1

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End
2520	HD 123782	14 04.6	49 56	I 12½	IIIa O	.008	32.5C	9.09	21:30	
~~2704~~	~~HD 114 762~~	13 07.5	+18 02	I 12½	IIIa O	.008				
1212-149	α Lyr	18 35.6 (1960)	+38°45		14,5,0	2X	28	22:12		
1213-149	Sourc				14,6,0			22 30		
1214-149	α Lyr	"	"		14,5,0	2X		22 36		
1215-149	⊕ M5	15 13 4	+02 27		5,6,7,1	2X+Sky		2315	23:32	
1216-149	⊕ M3	13 37.6	+28°53		5,6,7,1	2X+Sky		00 00	00 18	
1217-149	⊕ M10	16 51.9	-03 58		5,6,7,3	2X+Sky		00 43	01 02	
1218-149	α Lyr	18 35.6 (1960)	+38°45		14,5,0	2X		01:37		
1219-149	Source				14,6,0			01:45		
1220-149	α Lyr	18 35.6 (1960)	38°45		14,5,0	2X	7	01:52		
1221-149	α Lyr	18 35.6 (1960)	38°45		14,5,0	2X	28	02:10		
1222-149	Source	—	—		14,6,0			02:27		
1223-149	⊕ M92	17 19.6	+43°16'		5,6,7,0	2X		02:41	02:58	

bme Temp.....
bcus.....
bme Temp.....

Transparency Conditions .....
Started with mostly cirri.
Looks clear at 22:40
½ moon up 0°45 sky OK

Altocum Lenticularis N at 0300

Ending Time E.S.T.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
21:30	h01m W	49° 38'	1	6.8 ~~8.2~~	M_2 ~~F1~~	3-3-3	STD VEL Set 5 2ph+4 FRANK:	fair
	h39m E			0.04	A0		5; drum seeing	
	h15 E						(3450-5160 Å reading)	
	5°40' W	0h43m W		7.04	dF7			
	3°04' W	2°09 W		7.2	dF2		23:45 – all clear horizon.	
02	3h33m W	0h32m W		7.6	G0	fM0	without moon; its sky will (low) moon.	
	0°22' E			0.04	A0			
	0:00			0.04	A0		02:00 slight cloud low in South.	
	0:18 W			0.04	A0			
58	2h:09m W	02:09 W		7.3	A5n		sky patchy affected by Twilight 02:48 { 3 parallel narrow clouds at 15° alt in northern sky.	
							03:00 clouds in N at +10° alt; moon 20° alt; daylight starting	

GAIN SWITCH IS IN VERY BAD SHAPE.

337

Date Mon - Tue June 5 - 6, 1961 Observer MR / Hr-I Julian Day 2437456.5

⊙75 c3 c3.3 3444.5

Plate No.	Object	R.A. 1900 1950	Declination 1900 1950	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.
1224-150	α Vir.	$13^h 23.1^m$	$-10° 59'$	Hy × H		.020	4 | 4-4	$21^h 04^m$	
1225-150	B'87764	15 32 2	$-09° 03'$	Hy	x2	"	6 | 6-4	$22^h 35$	
(25705	HD 136617	$15^h 16.6$	$+59° 53'$	I-12	IIaO B	008	23.8)		
25705	HD 184467	$19^h 29.5^m$	$+58° 24'$	I12	IIaO B	008	23.8	$0^h 41$	$1^h 30^m$
25706	HD 187691	$A^h 46.2^m$	$+10° 10$	I12	IIaO B	008	23.8	$1^h 51$	$2^h 05^m$
25708 (mint 2:10)	HD 177648	$19^h 00.5$	$+23° 11$	I12	IIaO B	008	23.8	$2^h 45$	$3^h 39^m$
	Focus Test	OTB							

Dome Temp. 72°

Focus

Dome Temp. 66°F

Transparency Conditions Scattered high clouds but seeing good. 338

2am EST - Cloud in SE; 3am - ½ more cloud

Ending Time E.S.T.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS			Quality
		−10° 58'		5.0	B1 I	30"	2"/min; 1A'/sec	4250 - 4540	B.	Good Sharp Low Cont.
		−09° 03'		5.2	B7	"	" " "	4250 - 4510	C.	
							Cl cut his scalp on shutter			
1h30m	h 20m E	+58° 28'	0-1	7.5	K5	3-3-3	Set 5; Std Vel.	Lens 8	5825 5850	Fair
2h15m	h 04m E	+10° 17.5'	"	5.8	F8	9	Set 5: Std Vel	Lens 6	5861 5863	Fair (Spectra)
2h30m	1h 17m N	+23° 14'	0	7.5	B3e	3-3-3	Set 5; Be Programme	Lens 8	5806 5826	Fair
						10/8	Set 9			Fair
							2 PH loaded in fog			
			MC	SC	ME					
		Jun. 6	+56.0	+20.6	+2.3					

339

Tues/Wed

Date June 6-7/61 **Observer** Hy - L F **Julian Day** 2437457.5
0 76 00 27.8 3444.0

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion 5cm	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.
1226-151	α Cyg B				I 5.0	28		20:21	
1227-151	5cm				1,4,6,0			22:38	
					1,6,7,0	11		22:46	
					1,6,7,0	7		23:51	
1228-151	SB-				1,6,4,0	50		23:20	
	MWC 292								
25709	HD 168957	18 17.3	+25 01	I 12½	IIa 0B	009	20.2	00 00	00:30
25709	MWC 310 HD 171648	19 00.5	+23 11	"	"	"	20.1	00:58	01:38
25710	MWC 320	19 41.3	+05 44	"	"	"	20.3	01:57	03:47
	Focus Test					OTB			

Dome Temp. 63

Focus

Dome Temp.

Transparency Conditions Clear early stratus [illegible]

340

Ending Time E.S.T.	Hour Angle East / West	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
	0.22E		8"	4.9	$G_0\overline{V}$		[illegible] 5h 25m E — [illegible] 20:50 ET	
			poor	6.0	$G_2\overline{V}$		vdB — night is not photometric.	
			"	6.0			Rayon is less than .1 mm [illegible] .3 mm [illegible] USE ELLIS	
	0:55W		6"	3.47	$G_8\overline{III}$		[illegible]	
							non-photometric	
	1:08E	+25 01	O	6.9	B_5e	3-3-3	Set 7 Bc proj NWC 292 " [illegible]	* Lousy
	0 40E	+23 15	O	7.5	B_3e	3-3-3	Set 5 " NWC 310 " 8	fair
	1:17W	+05 53	O	8.5	B_5ne	3-3-3	Set 8 " NWC 320 " 8	fair
						10/8	" 9	OK

3 PHs loaded 8

	MC	SC	ME
Jun. 8	+58.0	+20.8	-0.8
" 9	+59.0	+20.7	-3.0

* This exp. made with plunger half out !!!!

341

Date Sat. Jan 10-11/61 Observer GG - L Julian Day 2437461.5

⊙ 7950 00.3 3441.6

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P	Hour Angle End
25711	HD 178402	18h 34.9m	-09° 14'	I-K	IIa-O	016	23.5	23h 54	01 34	2	4E
25712	MWC 312 " 180398	19 11.3	12 56	"	"	.008	21.2	01 46	02 38	2	4W
25713	MWC 332 192445	20 09.8	36 02	"	"	"	21.2	02 44	03 08	2	3E
	Focus Test				OTB						

Dome Temp. 63

Focus

Dome Temp. 58°F

Gg, I, K.M. - 160 Visitors
Showed a CV in M3 (subsequently)
Sat - June 10, 1961

Transparency Conditions Clear except for some haze in the N. at first

342

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
0 04E	-09 12	0	9.28	BqIe	3-1-1	Set 5, O-B programme. Exp 9 5936 5996	Good
0 24W	13 01	0	7.7	Bsne	3-3-3	" Be prog " 7 6002 6007	Good
0 04E	36 12	0	7.1	Bsne	3-3-3 10/8	" " " " 7 6008 6013 " 9½	Fair
						2 PHe loaded.	

343

* Changed to 016 at 0030

Date Sun-Mon 11-12/61 Observer Gr – Hr Julian Day 2437462.5

⊙ 80 47 21.9 344.0

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P
1229-152	Messier 3	—	—			28				
25714	HD145501	16:02.6	+17:19	I 12½	IaO	.008	21.0°C	23:03	23:13	
	Focus Test							CTB	—	
25715	HD 173987	18:43.2	−06:34	"	"	"		23:42	2355	
"	"	"	"	"	"	*		23:55	0215	

9

Dome Temp. 64 °F

Focus

Dome Temp.

First low-scale test measurement of 3-Amplifier system on sky with image

GR acquired

Transparency Conditions ... approximately normal ... thin cirrus ...

344

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
		0				÷ thru high path-by clouds thru.	
P:10W	+17:09	0→1	6.1	G4	3-3-3	Sat-3. Stel Val (T has other bright companion) double 6024 6025	fair C 5 R.
					10/8	Sat-8	
[illegible]	[illegible]	0	9.28	Ba Ia C.S	3-	Sat 3- [illegible] OB Prog. 6036 " ([illegible])	
E:32W	-0632	0	"	"	3-6	" 7 " Hy also! #9 6043 6050	Poor beyond
						1 P.H. in fr. all	
						A very Poor Night.	
		MC		SC	ME		
	Jun 12	+61.2		+20.7	+3.2		

345

Date Mar 12-13/41 Observer C. Hr F Julian Day 2437463.5

@ 8h 44m 42.9 3440.3

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.	Hour Angle End
25716	HD 174886	18 47.7	-10 21	T I-S	IIa-O	008	23.7	00:41	2:15		2:2E
	Focus TEST		OTB								

Dome Temp. 69°F Transparency Conditions Fair — Poor 346

Focus

Dome Temp.

Reading Time E.S.T.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
	32 E	−10 17		8·1	B3e	3-3-3	MWC 307 Be Program SET 3 6068 Sep 8 6079	Good
						10/8	Set 8 Clouds obscured exposure - [illegible]	Fair to
							1 P.H. +10 in frig.	
			MC		SC	ME		
	Jun. 14		+63.0		+20.6	−3.3		

347

Wed
Date June 14-15 1961 Observer Vdk Julian Day 2437465.5
@83 39 22.8 3438.9

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.
25717	HD 115043	13^h 09.5	$+57^\circ$ 14	I-12	IIaO B	008	18	21:16	22.05	
	Focus Test									

Does not Arc!

Dome Temp.....

Focus.....

Dome Temp.....

Transparency Conditions ...partly cloudy...

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
2h07m W	56° 52.5	0	+3	5 V	3+3+3	NK Stand. clouded out 60°3	fair
						2p4 (I=.06) looked	

Ending Time E.S.T.

349 Thu/Fri

Date June 15/16, 1961 **Observer** WB, Hy **Julian Day**

Plate No.	Object	R.A. 1900 1960	Declination 1900 1960	Inst.	Emulsion	Slit	Temp. Slit	Starting Time E.S.T.	Ending Time E.S.T.	P.	Hour Angle Beg. End
1230-153	α Boo	14 13.8	+19 23		4,4,32	2x	50	20:45			0°00 E
1231-153	Roman 305	13 06.9	+ 5 27		7,8,32	2x	50	21:18			1°37 W
1232-153	γ Boo	14 30.5	+38 29		5,4,8	2y	50	21:47			2°3 W
1233-153	α Cr B	15 33.0	+26 51		5,4,8	2x	28	22:10			2°7 W
1234-153	Spree	—	—		4,4,8			22:28			—
1235-153	⊕ M53	13 11.0	+18 23		8,5,40	2x+sky		22:38	22:55		1°4 W
1236-153	⊕ M3	13 40.4	+28 33		7,6,40	2x+sky(1)		23:26	23:47		1°3 W
1237-153	⊕ NGC 6356	17 21.3	-17° 46		8,5,40	2x+sky		00:08	00:29		0°0 W
1238-153	⊕ NM 22	18 33.9	-23° 58		8,5,40	2x+sky		01:04	01:25		1°2 E
1239-153	⊕ M 13	16 40.3	+36 22		7,6,40	2x+sky(1)		01:50	02:10		1°7 W
1240-153	α Cr B	15 33.0	+26 51		5,4,8	2x	28	02:23	—		1°4 W
1241-153	Spree	—	—		4,4,8	2x	28	02:52			
1242-153	⊕ M 15	21 28.1	+12° 00		7,5,40	2x	28	02:55			3°6 E
1243-153	BW Vul	20 52.2	+23 17		7,3,16	2x	28	03:20			3°5 E

Dome Temp. 58°

Focus ——

Dome Temp. ....

Transparency Conditions Hazy, clear, some [illegible] Cirrus - W and [illegible] (21'00) partly clear and haze total 350

700V ✓

Hour Angle End DBLE	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
0h00			0.06	K2 III p		2"/min, 3450 - 5160 reading on spect.	
1h37mW			6.80	G5 V		20:54 thin cloud just N. of Arcturus, Also, searchlight from Red Hill is sweeping zenith.	
2h43mW			3.05	A7 III		21:20 no obvious clouds but cirri may well be present 2 searchlights	
3h04mW			2.21	A0 V		(searchlights gone thanks to Dr. Heard. but there is one other (much fainter) near Hγ in the south.	
——	——		——	——		Sky poor only.	
12h54mW	02h52mW		8.7	A8 n			
13h13mW	3h12m		7.2	dF2			
h15mW	0°15'W)		9.7	G5			
h02mE	!		6.5	F6			
37mW	!!		6.8	dF2			
12hmW	——		2.21	A0 V			
——			——				
h06mE			7.3	dF0		no sky	
05hE			6.2	B		Strong Twilight	
	MO	sd	ME				
Jun 16	+643	±20.4	0.10				

THE R.A. CLAMP WORKS 50% THE TIME ONLY on Telescope

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Fri Sat

Date Jun 16/17 1961 Observer Hy G7 Julian Day

Plate No.	Object	R.A. 1900 (1960)	Declination 1900	Inst.	Emulsion	Filter / Freq	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.
1244-154	σ Sco	14:31.9	+29 15.5		6-4,32	3X	14	20:57		
1245-154	Roman 305	13 06.9	+5 27		7,3,32	2X	50	21:36		
1246-154	Sonata				4,4,8	—	—	21:54		
1247-154	α C.B				5,4,8	3X	29	22:04	22:11	
1248-154	⊕ NGC 5024, M53				8,5,41	2X+Sky	"	22:39	23:02	
1249-154	Sonata				4,4,8	—	—	23:24		
1250-154	⊕ NGC 5904 M5				7,6,41	2X+Sky	"	23:35	23:55	
1251-154	⊕ NGC 6356				8,5,41	"	"	00:18	00:38	
1252-154	Sonata				4,4,8			00:56		
1253-154	Sonata				4,4,8			01:05		
1254-154	⊕ M22	18h31.3	-23°58'		4,4,8	2X+Sky	"	01:14	1:23	
1255-154	α C.B				5,4,8	2X		02:02		
1256-154	⊕ NGC M13				7,6,41	2X	Sky	2:37	2:55	
1257-154	Jupiter				(3,6,8)	2X	10!	3:24	3:50	
1258-154	Sonata				4,4,8			3:50		

Dome Temp. 67°F

Focus

Dome Temp.

Middle

Transparency Conditions CK w/ a lot of strato-cu around. Much better sky, thinner haze. Good – 0h. Thin haze in zenith – 1h or 2h. Lots of clouds in every direction except South.

352

ending Time E.S.T.	Hour Angle East	West	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
	0h04m E,		0h02m W (estimate)		4.8	F5 V		MK Std.	
	2h00m W				6.8	G5 IV			
	2h01E,		0h09m W.					JOHN BOOKER (?): DON'T LEAVE YOUR COELESTAT DEAL UP AT NIGHT SO DICK HENRY HITS HIS HEAD ON IT, PLEASE. Dick.	
	2h57m W		3h04m W						
	1h52m W								
	0h28m W		0h28m W						
	0:11 W		+0:07 W					01:45 cloud at 15° in N, thin cloud NW + E horizon, thin cloud high SW. Most near M22. cloud straight start on 2 to 1. 02 15 cloud in N at 15°;	
	24h07m W								
	3h28m W		0?:24 W		Cloud at end, on to Lod				
	3h33m W								
						missing. was it taken???			

353

Sat/Sun

Hy – (Gg)
L – Hy

Date Jun 17/18 1961 Observer KM Julian Day

Plate No.	Object	R.A. 1961	Declination 1961	Inst.	Emulsion Scan	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.
1259-155	α CrB	15 33.0	+26 51		5,4,8	28	2X	22:25		
1260-155	Somer				4,4,8			22:42		
1261-155	⊕ M10	16 55.0	-04 03		8,5,40			22:53	23:12	
1262-155	⊕ M19	17 00.1	-26° 12		8,5,40	28	2X+sky	23:35	23:54	
1263-155	⊕ NGC 6356	17 21.3	-17° 46		8,5,40	28	2X+sky	00:15	00:32	
1264-155	⊕ M28	18 22.1	-24° 54		8,5,40	28	2X+sky	00:58	01:25	
								01:16 second		
1265-155	β Cr B	15 33 0	+26 51		5,4,8	28	2Y	01:50		
1266-155	⊕ M71	19 51.9	+18 41		8,5,40	28	2X+sky	02:15	02 34	
1268-155	α Lyr	18 35.6	+38 45		4,4,8	28	2X	03:04		
1267-155	Somer				4,4,8	28		02:52		

Dome Temp. 65

Focus

Dome Temp.

middle

3rd photometric night in a row - photometric!

Transparency Conditions 22h -- Clear - all ones.

160 visitors showed π Boo, and Messier 3

Ending Time E.S.T.	Hour Angle	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
	0h27m W			2.21	A0V		1945 1527 418	
3:12	h27m E	0h30m E		7.6	G0		00:20 no clouds horizon good.	
	h09m W	0h07m W		8.3	F5			
0:32	h28m W	0h25m W		9.7	G5		01:03 button on spectrophotometer pressed, got a charge of | this much. Was the button pressed at the start of the exposure? See rough sketch on other side of paper. — Bill Gray Project Notes.	
01:15	h11m W			8.5	F9			
	h21m W			2.71	H0V			
	h15 W							
	352 W							
	002 E	00h05m E		8.3	G2		2:26: cloud at 10° in the N. clear otherwise	
	204 W			0.04	A1V		Parked 01:30	

03:00 clouds from N.

355

Sun - Mon

Date Jun 18/19, 1961 Observer Gg - Hv Julian Day 2437469.5

⊙87 28 34.1 3436.0

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P
25718	HD153454	$16^h 54.6$	$+17°51'$	I-12	Tech	.8'	23.8	22:36	00 00	
25719	MWC 349 HD 160957	18 17.3	25 01	"	"	"	23.5	0104	01 32	
	Trans Mist		OT	B						

Use 3½ cm Δ

1385-156	9 Peg	21 42.7	+17 09		5;16,16	50!		3:39 (one way)	
1386-156	Sun				4,4,8			3:48	

Dome Temp. 67°F

Transparency Conditions Thickhaze after sunset all night. 22h - Extinction is still large.

Focus

Dome Temp. \

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Ending Time E.S.T.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
	0034W	+17°45'	0	7.56	A0	3-6	KA 8X8 Set 2 6112	fair
	14W	25 00	0	6.9	B5e	3-3-3	Set 2 Hd Be #7 6117 6123	fair
						1/8	" B	excellent
							IP-(#3) Fwd II=0.6	
							Clouds after midnight	
		Jun. 19	MC +67.0	SC +20.3	ME -5.0		Focus (mm) = 1 cm off	
				4.5	G5 I		twilight beginning	
							The pole pieces of [illegible] together. Wanted [illegible] equal and will [illegible]	

357 Wed / Thu Gg

Date June 21/22, 1961 Observer Hy - Julian Day

Plate No.	Object	R.A. ~~1900~~ 1960	Declination ~~1900~~ 1960	Inst.	~~Emulsion~~ Scan	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P	Hour Angle Last
1269-156	HD 114710	13 10.1	+28° 04		6-4-8	Sat 14	2X	20:58			17"W
1270-156	HD 140283	15 41.1	-10 49		7-5-24	"	2X	21:21 (start sky 21:47			35
1271-156	α Cr B	15 33.0	+26 51		5,4,8	28	2X	21:56			14"E
1272-156	Source				4,4,8	"		22:13			
1273-156	γ Ser	15 54.6	+15 48		5,6,8	28 NE	2X	22:20			6"W
1274-156	⊕ M19	17 00.1	-26 12		8,5,40	28	2X + sky	22:45			24"E
1275-156	Source				4-48			23:26 +	23:31		
1276-156	72 Her	17 19.2	+32 32		6,5,16	28	2X	23:42			13"W
1277-156	110 Her	19 44.0	+20 31		5,6,16	"	2X	00:11			E
1278-156	α Lyrae	18 35.6	+38 45		4,4,8	"	2X	00:41			
1279-156	HD 182907	19 23.9	+24 51		6,5,8	"	2X	1:17			E
1280-156	Source				4,4,8	"	"	1:35			
1281-156	α G.B	15 33.0	+26 51		5,4,8	28	"	1:44			
1282-156	HD 202914	16 52.2	+42 54		7,5,32	14		2:17			SW
1283-156	ι Peg	22 05.2	+25 09		5,6,16	14		2:44			3.5
1284-156	HD 184499	19 32.0	+32 07		6,6 16	14		3:06			

SEE back one page

Time Temp. 60

Focus —

Time Temp.

Transparency Conditions

21h → [illegible] 21h +0° Aurora — Iordell [illegible] N.
23h +0° — Aurora — patchy [illegible] N.
00h 0° — generally [illegible] N. [illegible]

358

Ending Time E.S.T.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
	1h 37m W		6" 1 0-1	4.9	G0 V		Continuing [illegible]	
	28 E	sky one way		7.7	sd F5		Extensive clouds at sunset — they moved into the west + are gone, apparently, at 21:00. Moon is 1/4. D + below 1269	
	1h 14m E			2.21	A0 II			
	3h 16m W			4.3	F6 V	MK	strange emission line — origin unknown.	
	3h 24m E	+0h 04 E		8.3	F5		M19: start → moon at 18°, 4½h away. Aurora: stationary at 20°, flashes at 45°, Was over zenith 3/4h ago. None visible in South.	AURORA
	3h 13m W	[illegible]		6.0	G5 V	MK	Telescope was not moved [illegible] 20m for sky.]	
	41 E			4.7	F6 V	MK	23:40 aurora, quiet, at 15° in N. + some fainter, higher	
	0 03 E			0.04	A0 II			
	0 14 E			6.7	F6 V		[Looked for NGC 6822, could not see it in finder.]	
							MC SC ME Jun 26 +71.6 +18.8 -4.0	
	4h 03m W		[illegible]				[illegible]	
	3h 19 W			7.5	G0 V		02:14 AURORA STILL FLUCTUATING IN N. to 55°+.	
	1h 31 E			4.4	F5 V		[illegible]	
	1h 25 W			7.2	G0 V		" " "	

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Mon / Tue

Date June 26/27 Observer MR DL (N.J.) Julian Day 2437477.5

Q 95 06 23.9 3431.3

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End
25720	HD136 20.2	15h14.2	+02 09	12"	IIaO-b	set .008	21.5C	21:46	21:54	3° 0' W
"	"	"	"	"	"	"	"	22:04	22:21	0° 7' W
25721	HD 156110	17h10.6	45 30	"	"	"	"	22:40	22:58	11° E
"	"	"	"	"	"	"	"	23:01	23:35	25° E
25722	ND 170010	18h20.2	+06° 25	12"	IIaO	.008	21.3C	0h 19	1h 11	1° 50' W
25723	HD 195407	20h 26.0	+36° 39	"	"	"	21.3C	2h 07	2h 33	3° W
25724	HD 195592	20h 27.2	+43 59	"	"	"	21.3C	3h 55	3h 11	5° W
"	Focus Test		OTB							

Wrong Man? — Focused on [illegible] star

ome Temp. 68°

ocus

ome Temp.

Transparency Conditions Clear (Sun) & bright
Bright Moon

360

Ending Time E.S.T.	our Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
	0h 40m W	+01° 53'	1	5.6	G0	3-3-3	Set 2 Std Vel. Star S6 {6134 6138	f
	1h 07m W	"	1	"	"	3-3-3	6 " " " S6 {6143 6151	f
	1h 11m E	+45° 27	1	7.3	B3	3-3-3	Set 2: B-Type " " S7 {6151 6156	f
	0h 25m E	"	1	"	"	3-3-3	Set 4 " " " S7 {6154 6164	f
	1h 20m W	+06° 35'	1	8.4	B7	3-3-3	Set 2 B-T Std Vel S8 {6160 6183	f
	2h 13m W	+36° 50	1	7.7	B3e	3-3-3	Set 2 MWC 325 S8 {6195 6201	f
	2h 45m W	+44° 10'	0	7.2	B1.5e	3-3-3	Set 2 MWC 347 S7 {6203 6205	f
						10/8	Set 8	
			MC		SC	ME		
		Jun. 28	+73.0		+18.6	-5.0		

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Date ..... Observer ..... Julian Day .....

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.	Hour Angle
1287-157	2C₆B	15 33 0	+26 51		6/2/8	28		21h 06m			
1288	Sauce				4/4/8			21 25			
1289-157	2C₆B				6/2/8	28		21h 30m			
1290-157	M3	13 38	+28		7/6/40	28		21 51			
1291-157	T Her	17 13 4	+35 50		7/5/8	50		22 42			
1292-157	2 Oph	17 33.1	+12 35		6/6/16	50		23 18			
1293-157	HD 172792	16 52.2 (1900)	+42 54		7/5/40	14		00 00			
1294-157	2 Lyr	18 35 6	+38 45		6/5/8	14		00 35			
1295-157	2C₆B	15 33 0	+26 51		6/2/8	28		00 58			
1296-157	Sauce				4/4/8	28		01 16			
1297-157	HD 182807	19 23.9	+29 51		6,6,32	14 (4)		1 35			
1298-157	"	"	"		6/5/32	50		1 55			
1299-157	HD 184499	19 37 0	+32 07		7,5,32	14	2 min	2 31	2 49		
1300-157	2 Lyr	18 35 4	+38 45		4/5/8	14		3 05			
1301-157	Sauce				4/4/8			3 22			

Dome Temp. 70°F

Humidity 69% at 23h, 67°F (71° to −2h)

Transparency Conditions thin clouds in NW ... N.yet (moon)
photometric [illegible] OK — Some [illegible]
23:00 Looks [illegible]
01:00 poor [illegible] now [illegible] yet)

Focus .....

Dome Temp. .....

mid UG

Hour Angle	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
0 01 W	+26 51	12"	2.21	A0 V		Focus on 10m before & on B!	
					S1	Ptg 6028 → 40 → 28 Seq. 8 repeat!	
0 22 W	+26 51	12"	2.21	A0 V	Ref	Pilot mag shows 2 Sources all the way! Slide in 21.30 slide not in notch!	
2h 42 W	+2°42'	+28 35	9.44				
0 06 E			3.36	K3 II			
0 11 W	+12 35		2.09	A5 III			
1 32 W	+42 54		7.5	G5 V		S clamp no good, repaired, Sky ≡ 0 — 3 Sec to 5 Sec back	
0 22 W	+38 45	2"	0 0	A0 V			
3h 51m W	+26 51		2.21	A0 V		added 4 to the dial.	
0h 40m W			6.7	F5 V			
0h 59 W			6 7	F6 V			
1h 26 W + 1 43 W		8-6"	7 2	G0 V		— (sky, cloud)	
2h 56m W						Transf. Cable was cut down [illegible] by 2 Square leg in Quartet of Sep 3 21. Also light on Brown. Put new red paint on Scale lamp	

Date Sun/Mon July 2/3 61 Observer -I Julian Day 2437483.5

⊙ 100 49 30.6 3431.5

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.	Hour Angle End
25725	HD 193009	20h 12.6	+32°04	I 12	IIaO	008	22°C	1h 59	2h 15m	4	3h 11m E
25726	HD 205060	21h 27.7	+42°16	I 12	IIaO	008	21°C	2h 36	2h 52m	1	0h 1m E
25727	HD 217543	22h 56.3	+23°10	I 12	IIaO	008	20°C	3h 14	3h 27m	2	1h 05m E

Focus Test OTB/IIA

Mon/Tues night of July 3/4 1961

Opened up at 21:00 EST no KAFS

Sky not clear enough - fast. Sky too cloudy at 23:30 EST so closed up completely.

Dome Temp. 68°F
Focus
Dome Temp. 62°F

Transparency Conditions Fine (Cyl. 2 to EST) 364
00h 25m just opened up - cumulus cloud
1h 20m looks like closing 190 EN
- half moon

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
4h 30m W	+32° 12′	0	7.0	Bmc	3-3-3	Be Trngs. MMC 336 Lens 7: 5.5 {625 / 629.5}	good
0h 11m E	+42° 29′	0	7.1	Bmc	3-3-3	Be " " 371 Lens 7: 5.5 {600 / 605}	good
1h 05m E	+33° 26′	0	6.4	Bmc	6-3	Be " " 595 Lens 6 5.5 {625.1 / 629.4}	good
						10/8 Lt 8	
						2 PH's Loaded	
	Md	sd	ME				
July 4	+76.1	+16.3	-4.0				
						Query: ① 1 plate cut poorly; Lens 5 by mistake. Left in plate room	
						② - Visible exposure time too long don't eliminate	
						③ - Sp. temp. control (chamber) very sensitive	
						④ - Trngs are poor	
						⑤ Spring clamp or hook type of plate holder	

365 — Tue Wed (wd B) — probably 28 Sept B

Date Jul 4/5. 1961 Observer Hy Julian Day

Plate No.	Object	R.A. 1900 (1960)	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.	Hour Angle
1302-158	α Lyr				4,5,8	14		21h10			3h19m
1303-158	"				"	"		21:29			
1304-158	HD 174933	18h41.1	-10°49		7,5,32	14		21 51			
1305-158	Source				4,4,8			22 03			
1306-158	⊕ M13	16 40.3	+36 32		7,6,40	28 + 2x slit		22:34	22 52		+0h54m4
1307-158	⊕ M13, Star #58	"	"		8,5,40	"		22:28			1h28m W
1308-158	α Lyr				4,5,8	14		23h58			
1309-158	Source				4,4,8			00 15			
1310-158	72 Her	17 19.2	+32 32		6,5,16	14		00 37			
1311-158	110 Her	18 44.0	+30 31		5,6,16	"		1h02			
1312-158	Source				4,4,8			128+130			
1313-158	Kopff 468	19:27.0	+24:25		6,5,32	"		148			
1314-158	6 Peg	22 05.2	+25 07		5,6,16	"		2'19			
1315-158	51 Peg	22 55.6	+20 33		6,6,24	"		2 49+308 (1 hr over)			
1316-158	α Lyr				4,5,8	"		3:28			
1317-158					4,4,8						

2h 11 61 T57

Dome Temp. 63

Focus

Dome Temp.

midale

Seeing excellent from 6 inch obs 2h

Transparency Conditions Cirrus in NW (low), a few high SW

22h15 → Aurora in N.

360

Hour Angle ~~Hard~~	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
3h19 W	24 1/2 N	7"					
3h36 W						5160 → 3445.	
0h52m W						one-way — [illegible] prior to λ3430	
						trouble throughout	
+0h54m W						Refocused! Looked for individual stars. — quite close.	
1h26m W							
0 04 W						Seeing good Aurora temporarily ended	
1 57 W		4"	6.0	G0 V		[illegible]	
1 00 W			4.7	F6 V		[illegible]	
						added dry ice — it melted [illegible]	
1 03 W			4.4	M0 III		Special star [illegible] — no visitors	
1 04 E			4.4	F6 V		[illegible] 1/2 Moon — Fast	
1 22 E			6.2	G4 V		[illegible]	
3 34 W		6"	6.0	A0 V		Seeing can't be called good	

	MC	SC	ME
Jul. 5	+76.5	+16.0	-6.8

Date Wed-Thur Jul 5/6 1961 **Observer** Hy - Hy **Julian Day**

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.	Hour Angle End
1318-159	α Cr B				6,2,8	28		21:34			00 46"
1319-159	source				4,4,8	"		21:50			
		PAPER			4,5,8	"		21:55			
1320-159	⊕ M92				8,5,40	"		22:08	22:26		00h 23m E
1321-159	⊕ M14	NEEDED			8,5,40	"		22:54	23:13		00h 03m W
1322-159	⊕ M13	From			7,6,40	(sky "	1 way only)	23:40	00:00		01m 45" W
1323-159	α Cr B	Storeroom			6,2,8	"		00:18			0 29" W
note								00:26			0 38 W
1323-159	α Lyr				4,5,8			00:51			
					4,4,8			00:56			0 36" W
1324-159 ⊕	Stars in M71	← see chart on back of			8,5,40			01:25	01:36		0 15" W
1325-159	⊕ M71	[illegible]			8,5,40			01:46	02:04		0 40 W
1326-159	source				4,4,8	and	4,5,8	02:25			0 [illegible] E
1327-159	⊕ M15				7,6,40	[illegible]	[illegible]	02:35	02:55		0 17" E
[illegible]	[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	03:12			[illegible]
1328-159	α Lyr				4,4,8			03:27			0 22" W

Dome Temp.....

Focus.....

Dome Temp.....58°

Transparency Conditions .....

21:05 changed to 700 volts + put ice in.
sky poor.

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
00h46m W.						Clouds about!	
						13.4, → 12.7	
						38.7 → 38.1	
00h23m E	0h26m E					(22:10 cirrus at 10° in SE. Something in NW? sky thelf is clear, galaxy visible, star looks a bit 'light'.)	
00h03m W	0h02m W	– one bright star nearby I think.					
01h45m W		– very clear + sharp.					
03h29m W	– centring bad.						
03 38 W							
overflowed						(Antares is not bright enough to catch your eye – though it is clearly visible.)	
01h06m W							
00h15m W	0h26m W	– on tracking, star is just there –				(01:09 sky is clear, except in SE, but looks 'punk'. definitely some thing low in SE. Moon rose 15m ago.)	
02h40m W	00h37m W						
~~00h07m E~~	~~02h55m W~~						
00h07m E	02h55m W						
03h38m W						(03:15 – moon at 20° alt. 2nd sky, for M15 is much higher.)	

Very poor.

not much better than the 1st star!

369

Date Thur-Fri July 6/7 1961 Observer Hy Gg Julian Day 2437487.5
@104 38 18.3 3432.8

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.
1329-160	Source				4,4,8	f 4,5,8		21:10		
1330-160	α Lyr				4,5,8	14 (1)		2115		
1331-160	M57 Ring Nebula	Planetary Nebula			8,5,32	14		21:49		
25728	HD123782	14:04.6	+49:56	I-12	IIaO Lab	set .007		2218	2248	
	Focus Test		OT B							
	Objective					Closed Cut			~ 23h	

Dome Temp.
Focus
Dome Temp.

Hour Angle End

02' 32" E

3 23 W

H=1½ T 63 F

Dome Temp. 70°

Focus

Dome Temp.

21h15m Fair except for stratus haze SW + NW

Transparency Conditions 21h40m ... 3 to

in 11" Reversed Telescope Eq. F, Hy.

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
02h32m E						Took as an extra.	
too much cloud							nil
						— Voltage to 900, 6ft at Spec. not Exmtr.	
3h 23m W	+49°43'	0 0-1	6.8	M_2	3-3-3	Std. Vol.	fine
		8/10				{22:22 : voltage reset at 700}	clouds
		MC	SC	ME		FRANK: the 3 ur still seem to fail a bit for me reason. why?	
	Jul. 7	+77.7	+15.3	-2.0			
						I ph in frig but it was only spotted once.	

371

Date Fri/Sat July 7/8 '61 Observer [illegible] Julian Day 2437488.5

⊙ 105 35 31.1 3433.1

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.	Hour Angle End
2572g	HD 133965 + Focus TEST	15 07 2	+29 35	12"	IIaO	16	19½°	21h 19m	23h 00m	]	
1332-161	+ Lyr	18 35	+ 38 45		4/4/8	28		23 20			0°20E
1333-161	Source				4/5/8	28		2340			
1334-161	M13	16 40·2	+36 32		8/5/41	28		2350			2°40W
1335-161	M92	17 15·9	+43 11		8/4/41	28		0030	15h, 00m		3°W
1336-161	+ Lyr	1835	+38 46		4/4/41	28		0118			1°E
1337-161	Source				4/5/8			0140			
	Clouded Down	01 55									

Dome Temp.
Focus
Dome Temp.

Dome Temp. 61°F NB pressure problem

Focus ✓

Dome Temp.

Transparency Conditions Fair ✓

Looks fine at 7300 Some clouds over hills, may have emptied out

7000' ! how before begin of observations

00 20 patchy

01 30

Seeing very poor in UV Typical

DIFS Sunday Evening

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
2h40mW	29 21	0-1	9 42	FG	½·1½+1'	KAFS 59B625 -33 - 22 NB Spectra on	Good one 7 pm OK
0h20mE		10"	0 04	AOI			
2h00W	+1°59'W		6 8				
2h07W	+2°07'		5 1				
1h35mW			004	AOI			

Guest Night 150 visitors

2 PH looked II ○

Date Sun-Mon July 9/10 Observer vd Bergh Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H	Hour Angle End
1338-162	α Cr B	15 33.0	+26 51		4/6/8	28		~~20:~~	~~20:55~~	20h5	0h25m W
1339-162	Source					28		21:15			
1340-162	αCr B	15 33.0	+26 51		4/6/8	28		21:18			0h47m W
1341-162	α Boo	14 32.9	+29 55		5/6/16	50		21:47			2h15m W
1342-162	⊕ M10	16 55.0	-04 03		8/5/40	28		22:18	22:37		0h25m W
1343-162	⊕ M28	18 22.1	-24 54		8/5/40	28		23:01			0h18m E
1344-162	Sky M28+M22		-24°54'		8/5/40	28		23:20			0h05m E
1345-162	⊕ M22	18 33.9	-23 58		8/5/40	28		23:42			0h10m W
1346-162	✱ M22				8/5/40	28		00:00			0h35m W
1347-162	α Lyr	18 35.6	+38 45		4/4/8	28		00:17			0h45m W
1348-162	α Cr B	15 33.0	+26 51		4/6/8	28		00:37			1h05m W
1349-162	Source				4/5/8+16	28		00:54			
1350-162	⊕ M75	20 03.5	-22 02		8/5/41	28		01:05	01:23		0h04m W
1351-162	⊕ M2	21 31.4	-01 00		7/6/41	28		01:48	02:06		0h42m E
1352-162	⊕ M15	21 28.1	+12°00		7/6/40	28		02:19			0h07m E
1353-162	α Lyr	18 35.6	+38 45		4/4/8	28					

Dome Temp. 66

Focus

Dome Temp. 58

Transparency Conditions

21:20 Fuzzy C/ in N/E, probably contin 374 photo sequence [illegible]
21:15 Looks OK except some clouds low over the Lake
23:30 Looks OK
01:30 Fine except for low clouds over lake, St. Anton in N

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
0^h25^m W		5"	2.21	A0 V			
0^h47^m W							
2^h15^m W			4.48	F2 II			
0^h25^m W	0^h23^m W		7.6	G0			
0^h18^m E							
0^h05^m E							
0^h10^m W			6.5	F6		Bright stars avoided!!	
0^h25^m W						bright star 8d SF cluster center	
0^h43^m W			0.04	A0 V			
4^h05^m W			2.21	A0 V			
			9.5	G1		Jul. 10 MC +79.2 SC +14.6 ME -0.5	
0^h04^m W	!						
0^h42^m E	0^h40^m E			SKY		one way only.	
0^h07^m E	0^h05^m E			02:39		– second half again (M15) sky (Twilight, two nights in a row! One way only)	
			0.04	A0 V		Dome would not stop-almost hit telescope.	

375

Date Tues/Wed July 11/12, 61 **Observer** S Hr Hm I **Julian Day** 2437492.5

Plate No.	Object	R.A. ~~1900~~ 1960	Declination ~~1900~~ 1960	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H	Hour Angle End
25730	NGC 6218	$16^h 45^m.1$	$-1°53$	Newt.	103-0			22h 05m	2h 37m	1	
25731	NGC 6254	$16^h 55^m.0$	$-4°02$	Newt.	103-0			23h 12m	3h 10m		
25732	NGC 6333	$17^h 15^m.0$	$-3°$	Newt.	103-0						
25733	NGC 6838	$19^h 51^m.0$	$+18°47'$	Newt.	103-0			23h 49m	3h 18m		

Fri-Sat July 14/15 Hy

SHUTTER FUSE BLEW AT OPENING. ← JERRY!

NIGHT WAS POOR ANYWAY

Dome Temp. 73°F

Focus

Dome Temp.

Transparency Conditions

GEN. WAS 1001.

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
						focus star E Optic 16h16m +14°25'	
						Stayed on 6426 taf a few minutes for	
						12:00 Sky too poor to continue	
						2 mag absorption in zenith 3-4	
						No duration or program to	
						these conditions	
						1 NEWT. P.H. LOADED IN FRIG.	
		MC	SC	ME			
	Jul 12	+80.5	+14.1	-0.2			
	" 14	+81.2	+13.0	-2.5			

377

Date Sun/Mon July 16/17 Observer F Julian Day 2437497.5

⊙ 114 10 39.6 3435.5

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.I
25733 ·1	HD187691	19 46.2	10:10	T-12	Ila0	008	22.5	01 . 24	01.29	T.
·2								01. :30	01. 36	
·3								01 :38	01. :53	
25734	HD 187614	22 27.4	16 :46	T-12	"	008	22.8	02 : 21		
FOCUS	FST									

ome Temp.

ocus

ome Temp.

Transparency Conditions Very Hazy

Clouds until 12.00 EST

378

SAT: 103 Visitors. Saw telescope and film "The Sun's Family" Hy, F.

ding Time E.S.T.	our Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
		10 17		5.7	F8	3-3-3	ret 2	6 3 3 ①
								5 3 3 2
	1:09W	"		"	"	3-3	ret 5	6 3 3 3
								6 3 3 8
	1:25W	"		"	"	3-3-3	ret 8	6 3 3 5
		17 02	0	8.5	G8	3		

(G2 JSE)

Date Tue/Wed July 18/19 Observer Hy - Hy Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End
1354-163	α Lyr				4/5/8	14		21 38		22 E
1355-163	R.373			cirrusky	7/6/33	14		22 55	23 21 ~~23 11~~	
1356-163	α Lyr				4,5,8	"		23 38		
1357-163	Source				4,4,8			00 01		
1358 - 163	⊕ M28				8/5/40	14	one way only	00 15		
1359 - 163	⊕ M28				8/5/40	28		00 27	00h47	1h42m W
1360 - 163	⊕ M75				8/5/40	28		01 16		2h42m W
	second half again (cutting off)							01 36	01 49	
1361 - 163	⊕ M15		no good		8/4/40	28		02 28		
								→ clouded out		
	α Lyr					14				

Very poor just after sunset

≃ 22h ⅔ ½ of light is went out

Dome Temp. 70

Focus

Dome Temp.

Transparency Conditions Ok except for haze on west

380

Telescope Personnel - Gq.

Ending Time E.S.T.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
	1 22 E		0⁻					
2:21	seeing			7.7	sd F5	Sky	Land time 3422 to 5160 one way / Further work could be a waste of time at present	
				8.5	F1		00:50 clouds in N (15° alt) and E (10° alt).	
							I gone ½ hr later	
0047	1h 42m W	1h 40⁻ W						
	0h 48m W							
1 49		1h 01 W						
							– 02:30 clouds rising in S.	
			MC	SC	ME			
		Jul 19.	+83.0	+10.3	+0.2			

Kii - Dome clocks need adjusting

Jerry - can you fix the light on the other finder telescope (the next time we [illegible])

381

Date Wed/Thur July 19/20 1961 Observer - I Julian Day 2437500.5
0 117 c2 26.9 3436.2

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.	Hour Angle End
25735	HD 183143	19h 23.0	+18 05	I 12	IIa O 6	008	25.0°C	00h 45m	1h 42	[illegible]	1h 5m W
25736	HD 206773	21h 39.3	+57 17	I 12	IIa O 6	008	25.0°C	1h 56m	2h 13	[illegible]	[illegible] W
25737	HD 209292	21h 57.2	+56 14	I 12	IIa O 6	008	25.0°C	2h 27m	3h 17	[illegible]	[illegible] W
25738	HD 224559	23h 53.8	+45 52	I 12	IIa O 6	008	25.0°C	3h 26m	3h 36	[illegible]	[illegible] E

From Test 67B/17A
" "

21/22

For Fri - Sat Jul 14/15
see back two pp.

Dome Temp.... 72°F
Focus.....
Dome Temp.... 75°F

Transparency Conditions - Variable
- Opened up at 00h15m EST - fuzz in east
- improving; 1h30 - poor - slow count
- marginal in east;
- must be nearly photometric in NW (2h30 EST)
- 3:45 - poor again

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
1h50m W	+18° 11'	+1	6.9	B95eα	3-3-3	Be Prog. NWC 317 - Let 5 - Lens 7	6352 6362 good
0h05m W	+57 31	1	7.0	B8°me	3-3-3	Be Prog. NWC 376 - Let 5 - Lens 7	6364 6369 fair
0h52m W	+56°28	0	8.1	B5e	3-3-3	Be Prog NWC 383 - Let 5 - Lens 8	6370 6385 poor
0h45m E	+46°09	0	6.5	Bone	3-3-3	Be Prog NWC 407 - Let 5 - Lens 7	6386 6390 fair
						8/10 Let 1	cirrus
						8/10 Let 9	ok

	MC	ΔC	ME
Jul. 21	+83.0	+9.2	+1.6

2PM's loaded.

Where is Tsarevny - motor?
- OK

Sat - Jul 22/66

Eq, L, [illegible]

Lecture tel, photometric

[illegible] 100 Visitors

Date Sun/Mon 23/24 July 61 Observer I- Julian Day 2437 504.5

⊙ 120 51 33.3 3437.5

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.I	Hour Angle End
25739	HD 175863	18^h 52.3	+5953	I 12	IIaOb	008	29.5°C	22^h 13	22^h 24	2	4.1"E
~~25740~~	HD 193855	20 17.4	+3842	I 12	IIaOb	008	29.0°C			3	
25739 F		Focus Tab OTE/ITA									

Dome Temp. 78°F

Focus

Dome Temp.

Transparency Conditions — Clear at 22h EST
— Clouded over very suddenly just before began plate #3540

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
0h 40m E	59°57'	0	6.9	B4e	3-3-3	Pe Prog MWC 308 Lens 7 Lt 5 6h07 6h03	good (guiding)
			7.7	B2 III		~~ORB Prog (p.7) Aggregate H Lens 8 Lt 5~~	~~poor star track~~
						10/8 ~~Lt 5~~ ? Lt 9	Focus ok centre wall to red
						1 PH loaded in fog	
		MC	SC	ME			
	Jul. 24	+83.0	+7.9	-2.6			
						Stars are not good - does not use continuously	

385

Tue-Wed

Date 11(25-26/61 Observer Gq – Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.E	Hour Angle End
1362-164	α Lyr				4, 5, 8	14		22h44			-14W
	Source				4,405.8			23h12			
		[L - closed up]									

Home Temp.
Focus
Dome Temp.

Dome Temp. 72

Focus

Dome Temp.

H.d - visitors 60
showed M12

Transparency Conditions Fairly cloud just after sunset
Stratus in SE at 21h
21h25 — O.K.
22h50 - patches of cirrus overhead
- decided NON-PHOTOMETRIC

386

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
O 14W		Poor 9"				centering good Dry Ice in at 22h15	
						(managing to get R373)	
			MC		SC	ME	
	Jul. 26		+83.2		+7.0	+0.8	

Date Jul 26-27/61 Wed-Thu Observer GQ - GZ Julian Day

Plate No.	Object	R.A. 1900 (1960)	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.E	Hour Angle
1363-165	R373	15 41.1	-10 49		7,5,24	14		21 26	+2147		1h54m W
1364-165	R373	"	"		7,5,32	14		22 06			2h35 W
1365-165	R402	16 52.2	+42 54		7,5,32	"		22 58	+23 34		3h-W+
1366-165	αLyr	18 35.6	+38 45		4,5,8	"		23 59			1h32
	Source							00 17			
1367-165	110 Her	18 44	+20 31		6,5,16	"	3x	1 09			3h34W12h
1368-165	R551	23 15.2	-14 07		7,6,40	"		2 03	+2 24		1h02E
1369-165	αLyr					"		3 05			7h29W
	Source							3:06			
1370-165	85 Peg	00 00.1	+36 50		6,6,24	"		3 48			0h02E
	Source							4 24			

Dome Temp.
Focus
Dome Temp.

H67 T6d 2h

Dome Temp. 72

Focus

Dome Temp. 68

Transparency Conditions Clear exc for haze + cloud on S + W horizon 21h — all clear. 398

3h30 - Purplish zenithal Aurora in NE + E + streaks

V=100 at 19h47

Hour Angle (East middle)	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
1h54m W	+2h13	Not good 4"	7.7	sd F5		centering ok both times.	
2h35 W		poor				No sky centering not ~~so~~ good. repeated 2nd trace	
2h14W	+2h21	3"-4"	7.5	G. V		(moved back in RA).	
1h32		4" poor	0.0	A0 V			
2h34W	2h45mW	4-5	4.7	F6 V		Sky once (-ve)	1h2 - added dry ice (it mucked it)
1h02 E	+0h59E		8.6	sd F8		(moved teles back, Image swamped back + forth	
4h39 W		5" poor				∴ Teles out of balance in this position had to restart.	
0 02E		2"	6.4	G3 V		sky once. twilight. Aurora overhead getting bright.	

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Planet

Date Thurs. July 27-28/61 **Observer** Nd. - I **Julian Day** 2437508.5

⊙ 124 40 46.1 3439.8

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.B	Hour Angle End
25740	HD 16,961	17 43.4	−2 09	I-12	IIaOB	008	27.3	21.00	22 06	4	1.24m
Focus test											
25741	Jupiter	2h 17.8 1961	−20° 19 1961	I-12	IIaOB	008	27°C	00h 15		1	
									00h 45		
	Jupiter's Pole	·O··	!					00h 52			

Dome Temp. 77 F
Focus 12.64
Dome Temp.

Transparency Conditions Very poor
- Still poor in morn at 00'15 EST
- Too cloudy to observe Jupiter & bright full moon Saturn

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
W 24m	-2 13	1-2	8.2	80	3-3-3	Set 2 Radcliffe CB sens 8 "4" 6426 Clouds.	Good
			-2,3		X	Set 1 appx (1/5 coun't) - sens 4 Centre spotted.	weak
					9	Set 3 (1 coun't) "	fine
					9	Set 5 (1/2 coun't) "	l. weak
					9	Set 7 (1/4 coun't) "	weak
			set 7		3-3-3	Set 9 sens 7 date 6450 per 6451 1/2	l. weak
						- I think whole plate spotted — ok	
						- moon still very poor to observe	
						Give up at 1^45 EST	
						3 PHs Guessed.	

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Date Sat/Sun 29/30 July 61 Observer Hy-I Julian Day 2437510.5
⊙126 35 26.6 3441.6

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.B	Hour Angle End
25742	HD 184467	19h 29.5	+58 24	I12	IIaO	008	27.5°C	23h 25	23h 56m	2	1°40' W
25742 F1	HD 218014	22h 23.4	+16 46	I12	IIaO	008	27.5°C			3	

Focus Test OTE/IHA

Aug 1/61 - From Tests OTE + OTA, set 34.7 respectively PHI Plate No. 25742F2

Tue Wed - same temp of 16.0
Thu clouded over 21h40 - Gog
All hands off site attend after
storm

Aug 1-2/61

Thurs Aug 3-4 25 visitors (astron 1b
showed & Here. Then cloudy
with a clear interval about 00h Hy

Dome Temp. 74°F
Focus 12.690
Dome Temp. 74°F

Ventura: ~170 ± 10
Showed them
& Herc (clouds)
and M13

Transparency Conditions Fair: Light around horizon at 2B:00 EST
Gave up at 00h30m
23-15: hazy cumulo in S-W
24: Ground clear but not
-Sun visibly clear

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
0h40m W	+58° 30′	~0	7.5	K_5	3-3-3	Std. Vel. 25 Images 6462 6472	good
		~0	8.5	G_5		~~Std Vel 25 Imag~~	
						10/8 ~~Set 5~~	
						NB: The focus test plate also has "25742" on it.	
Set F	← Focus a.k.					1 ~~X~~ PM's Located	
		Mc	sd	ME		Many above calls about ECHO I and a "bright meteor" in the north but - Sonic with visible trajectory with the 1 meteor not possible - negative upon subsequent com-	
	Aug. 1	+83.8	+4.9	-2.8			
	2	+84.0	+4.8	-6.1			
	4	+84.0	+4.4	-6.7			
	7	+84.0	+3.8	-1.7			

Date Mon/Tue Aug 7/8 1961 Observer Hy - Hy Julian Day

Plate No.	Object	R.A. 1900 1961	Declination 1900 1961	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.B	Hour Angle End
1371 - 166	α Lyra	18 35.6	+38 45		4,5,8	14		21 45			2°06' W
1372 - 166	Sunset							21 58			
1373 - 166	⊕ M13	16 40.2	+36 32		7,6,40	28		22 14	22 34		1°19' W
1374 - 166	⊕ M92	17 15.9	+43 11		7,6,40	28	no sky	22 56			2°57' W
1375 - 166	⊕ M75	20 03.5	-22 02		8,5,40	28	1 way hazy	23 31			3°16' W
1376 - 166	α Lyr	18 35.6	+38 45		4,5,8	14		00 01			2°06' W
1377 - 166	⊕ M15				7,6,40	28		00 41	01:23		0°11' W

Gg - F - K M - Saturday Night
160 Visitors Aug 7-6/61
Use - Motorized Telescope -
Illustrated Lecture - Origin of Solar System

Dome Temp.....

Focus.....

Dome Temp.....

Transparency Conditions .....

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
0h06m W			0.04	A.V		curves at and for considerable time after, sunset. / 22:15 looks completely clear.	
2h29m W	2h30m W					23:15 a cloud in SSW at 50°. Small cloud - M12 region. no sky taken. — cloud has moved South!	
2h37m W							
0°24m W							
2h22m W			00 16	—		second ½ again.	
0°09m W	0h09m W	6	5½	"	"	" clouds still fast. sky low, but cloud increasing, and heavy. Have ceased to obs. 22:29 complete sunset.	
		Mc	sc	ME			
	Aug. 9	+8.4	+3.3	-1.2			

Wed.
Date Dec 7-10 1961 **Observer** - F **Julian Day** 2437521.5
0 137 07 29.7 34548

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.E	Hour Angle End
25743	M10 2130.4	22 23.4	[illegible]	[illegible]	[illegible]	.08	26.7	00 48	02 34	4	[illegible]
[illegible] -1	[illegible]	22 58.2	[illegible]	[illegible]	[illegible]	"	26.6	02 54	03 [illegible]	1	[illegible]
.2	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1	[illegible]
.3	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1	[illegible]
25745	[illegible]	01 21.0	[illegible]	"	"	"	26.7	03 45	04 22	2	[illegible]
25746	[illegible]	[illegible]	[illegible]	"	[illegible]	[illegible]	26.7	04 [illegible]	04 37	2	[illegible]
25747	Focus	Test									
					Yog: [illegible]		[illegible]	[illegible]	[illegible]		
							adjusting				

Dome Temp. 72°

Focus.....

Dome Temp.....

Transparency Conditions 7 thin

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS		Quality
1 04 W		3	8.5	G8	3-3-3		SET 1	l weak
1 20 W	-3 50	0-1			?		SET 2	
					4½-5			fine but guiding
					5-5½			
0 05 E	-00 38	1	7.5	K0	3-3-3		SET 2	l. weak (guiding)
0 06 W	05 56	1	<2	K2	4½-4½		SET 5	good (guiding)
					8-10		SET 7	center not found.
			M.C	S.C	M.E			
	Aug. 11		+84.5'	+2.9	+0.8			

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Date Fri/Sat Aug 11/12 1961 Observer Hy Julian Day

Plate No.	Object	R.A. 1900 1961	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.I	Hour Angle End
1378 - 167	α Lyr	18 35.6	+38 45		4,4,8	28		00:29	00:52 2nd half		—
1379 - 167	SOURCE	40.3			4,5,40	4,5,8	28	01:02			
1380 - 167	⊕ M 15	21 28.0	+11 59		7,6,40	28		01:28	01:47		
1381 - 167	BS 8634	22 39.5	+10 37		5,5,8	28		02:03			
1382 - 167	α Lyr	18 35.6	+38 45		4,4,8	28		02:26			
1383 - 167	⊕ M 15	21 28.6	+11 57		7,6,40	28		02:51			
	cent again							03:07	Hy		
1384 - 167	— M 31 —	00 40.5	+41 03		7,6,40	28		03:38	03:57		
1385 - 167	BS 8634	22 39.5	+10 37		5,5,8	28		04:12			

Dome Temp. 66°F

Focus

Dome Temp.

Transparency Conditions

early evening cloudy.

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
—	$3^h 28^m W$ $2^m\frac{1}{2}$.		0.04	A0 V		seeing: star is $\frac{1}{4}$ diam of field. / ran out	
						sky completely clear / of paper.	
$1^h 11^m W$	$1^h 31^m W$		~~3.32~~	~~B8 V~~		seeing is very poor - tracing noisy.	
$1^h 36^m W$			3.32	B9 V		← EXTINCTION STAR.	
$1^h 03^m W$	X		0.04	A0 V			
$2^h 36^m W$	~~$2^h 36^m$~~						
$0^h 10^m W$	$0^h 06^m W$					← obscured by twilight!	
			3.32	B8 V		no good.	

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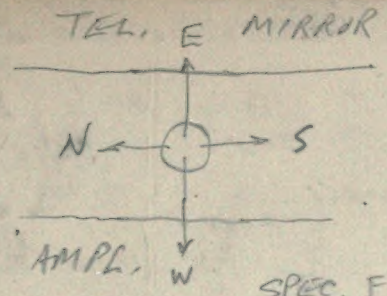
Date..... Observer..... Julian Day.....

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.

Ending Time
E.S.T.



SPEC. FIELD

Hr ∠ W −
E +

716 = 814

Se GHV
Se HV
} Searle

402

OB
Weblaw
Be
MK std.
} Heard

10
48

N Bin
KA 8×8
} Northcott.

KAFS } enter on cards file in fan drawer.

Focus

If Right all the way 20^{s} 25^{m}08

Pr 2^{s} Normal

00
21

-20 Move prism mill

Viewer N

#1 Lamp Warm up 16^{s} 25^{m}08